

CHAPTER 3

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3.

Boston is a vital natural environment

To say that the city is a natural environment might seem like a statement of defiance against the facts of highways and airports, skyscrapers and subdivisions, industrial complexes and vast systems of infrastructure. But the life of the city depends on the way it responds to the demands and limitations of nature. In a seminal study, Ann Whiston Spirn notes: “Nature is a continuum, with wilderness at one pole and the city at the other. The same natural processes operate in the wilderness and in the city.” Wherever you go in Boston, nature is abundant. To take advantage of that abundance, economic and community development at all levels need to complement the city’s complex natural spaces. Cities like Boston thrive when they achieve ecological as well as social and economic diversity in their communities.

The greatest challenge is to repair the ruptures in the parks, harbors, islands, rivers, gardens, urban wilds, hillsides that comprise the city’s natural system. The Boston Harbor and Boston Harbor Islands National Park represent one of the most exciting challenges of the next generation. The success of the ongoing effort to clean up the Harbor creates an opportunity to reopen the whole waterfront for active and passive recreation. The Harborwalk – a 43-mile pedestrian path that runs from Charlestown and East Boston down to Dorchester’s Neponset River – requires improvements along parcels that make up about half of the system. The Emerald Necklace is a world-renowned citywide park system, but it is damaged by highways and overpasses, polluted river beds, and uneven development and landscaping. The Parks Department’s efforts to restore the Emerald Necklace have achieved impressive results, but more work remains to be done. Improvement of major parkways, which once offered green corridors connecting other natural spaces but have become overrun by automobile traffic, could provide a critical strategy for such citywide parks connections.

In addition to repairing the damaged pieces of citywide park systems, Boston faces the challenge of improving access to parks of all sizes in all neighborhoods. Many communities in Roxbury, Dorchester, Mattapan, Allston-Brighton, and East Boston lack access to lively neighborhood parks that offer spaces for families and neighbors to gather. All over Boston, parks, playgrounds, schoolyards, urban wilds, and gardens form smaller systems of natural spaces that give definition and vitality to the neighborhoods. But many of these natural spaces are overrun or need design improvements to meet the changing needs of their communities. They also need to connect better with other civic spaces to create networks that define and animate the neighborhood. Strengthening these networks into systems of “charm bracelets” is critical for the goal of balancing urban and natural resources.

Boston’s five rivers – which border all but two of the neighborhoods – remain polluted from an earlier industrial age and isolated from their communities. The Metropolitan District Commission’s master plans for the Charles and Neponset Rivers offer new opportunities for connection Bostonians to their waterfronts. Boston must seize the opportunity to build on these efforts with comprehensive planning efforts that connect the rivers with a wide range of other community assets and to improve the overall experience of the areas.

Over the past generation, Boston's public agencies, nonprofit corporations, businesses, and community organizations have developed a sophisticated understanding of the ubiquity of natural spaces in the city. We now understand that improving the natural environment cannot be separated from a larger agenda of urban development – and vice versa. In the next generation, we have an opportunity to develop ever more extensive systems of parks and other natural spaces. Such spaces would enhance the overall character of Boston and its neighborhoods.

Principles of planning for a vital natural environment

Boston's residents have expressed environmental values with the following five basic principles of planning:

Incorporate the natural environment into all planning and development. Nature shapes the basic contours of the community. In Boston, a harbor and five rivers have created the outlines for all of the city's diverse communities. Sometimes, nature has to accommodate the demands of the manmade community. But every attempt should be made to make sure that natural systems are incorporated into development to prevent contamination of land and air and water, flooding, and landslides. Rather than emphasizing the costs associated with environmentally destructive development, it makes sense to emphasize the benefits of a strong environment. Good environmental conditions make for healthy people, sustainable citywide systems, and a superior quality of life – all of which make the city a desirable place to live and work.

All communities and people deserve well-designed parks and recreation spaces. Nature is essential to the everyday life of all people. People need places to find refuge from city life, places to stroll and socialize, places that commemorate history, places for children, places where youngsters and oldsters can play organized sports, places to garden and swim and canoe.

Sustainable development requires difficult choices. The pace and demands of economic development often do not highlight the importance of protecting and developing our natural resources. Housing developers, transportation planners, office-builders, community retailers, school administrators, and others face so many conflicting demands that they do not always put a high priority on environmental issues. Local government must do everything it can to insure that environmental issues become part of the calculus of all urban development projects.

Natural assets should be linked into seamless systems, which are developed over time. Real access to natural spaces requires that these spaces be linked with each other and as many other community resources as possible. A park is a destination, but it should be much more, too. Community streets and sidewalks should be designed to gently lead people from one community resource to another – parks, schools, transit stations, business districts, libraries, community centers, museums and historic sites. These systems are best designed and enhanced over time, as part of a clear but evolving plan. The best networks are mixes of old and new elements, which capture the character of the community's long legacy.

Parks and natural spaces require good design and stewardship. To be used and enjoyed, green spaces have to be well-designed and connected with a wide range of other community resources. They have to be accessible. And they need regular maintenance – from daily trash pickups, repairs of broken fences and paths, and occasional repair and reconstruction of their major elements. Occasionally, as popular activities and tastes change, the overall design of a park might have to change as well.

INITIATIVE: COMMUNITIES CONNECTED BY WATER

Water is truly the world’s irreplaceable resource. Without a reliable supply of water, neither the residents nor the businesses of any city could long survive. From ancient times to the present, harbors and rivers have defined cities’ spaces for economic activity, transportation, recreation, culture, and habitation. Water defines what is most basic about our own communities, and at the same time challenges us to explore the world beyond our own horizons. Boston is defined by the Boston Harbor and five rivers – the Charles, Muddy, Neponset, Mystic, and Chelsea – which connect with virtually every neighborhood in the City. Each of these waterways helps to define distinct communities – the neighborhoods within a half mile of the Neponset River watershed, for example, are home to 130,000 people, which would make it the fourth largest city in the Commonwealth – and enhancements of natural spaces strengthen civic identity and economic viability. In the past generations, massive cleanup efforts have transformed the Boston Harbor, the Charles River, and the Neponset River. The job of the next generation is to enhance and connect these “blue” spaces so that they are more ecologically and socially vibrant.

Vision

By the City’s 400th birthday, the City should create environmental and land-use improvements in and around the Boston Harbor and the city’s five rivers so that each waterway improves its immediate area. To connect people to the Boston Harbor and the Boston Harbor Islands National Park, the City should enhance transit connections to the waterfront and improve the appearance and pedestrian and bicycle accessibility of major streets like Columbia Road. The City should also complete Harborwalk to provide a seamless system of pathways along the entire 47-mile stretch from East Boston to the Neponset River. The City should create overlay districts for the City’s five rivers and engage nearby communities in planning processes that coordinate the activities of all major City and state agencies – and provide clear standards for waterfront development. Above all, the City and state should make watersheds as a fundamental element in all city planning.

Assets and opportunities

There is a **growing appreciation for the importance of water resources** in the life of the city. For most of Boston’s history, Boston Harbor and its five rivers were considered to be little more than sources of energy and depositories of wastes. Even after the end of the industrial era, the harbor and rivers have been the ultimate depository of sewage and runoff. But in recent years, Bostonians have made conscious efforts to put their best face toward the waterways. The greatest of Boston’s waterways is, of course, Boston Harbor. A major cleanup of the harbor has made it fishable and swimmable on most days for the first time in years. The Harbor boasts eight miles of beaches, over 20 miles of public access to the water’s edge, several community boating facilities, 30 islands that are now the Boston Harbor Islands National Recreation Area, and countless commercial enterprises including ship-building and fish-processing facilities.

Boston is also a city of **five rivers** that touch nearly every neighborhood and shape the natural and manmade environment. The Charles, Neponset, Chelsea, Muddy and Mystic Rivers all define the edges of the city and its neighborhoods, acting as natural boundaries between

Boston and its immediate neighbors. While people have enjoyed recreation in and along the banks of the Charles and the Muddy Rivers for many years, the Neponset, Chelsea, and Mystic Rivers are just now getting the opportunity to realize their community development potential.

[see SIDE Neponset River+ and MAP of Neponset River] [see SIDE Muddy River+ and MAP of Muddy River] [see SIDE Charles River+ and MAP of Charles River] [see SIDE Mystic River and Chelsea Creek+ and MAP of Mystic River and Chelsea Creek]

In recent years, Boston’s waterways have benefited from **major cleanup efforts** that promise to make them all swimmable and fishable in the next generation. Billions of dollars have been invested in improving the quality of the water in the harbor and five rivers, as well as modernizing the sewer and treatment systems in the region. *[see SIDE harbor cleanup (to come)]*

Barriers and Challenges

Water **runoff and flooding** occasionally overwhelms communities in Fenway, Mission Hill, Jamaica Plain, Roslindale, the South End and other communities. Before the filling of the Back Bay and Fenway and the construction of the Emerald Necklace, the areas southwest of the Boston Common acted as flood plains that absorbed runoff during heavy storms. But with the reconstruction of the banks of the Charles and Muddy Rivers, the covering of the Stony Brook, and the landfills, runoff and drainage after heavy storms sometimes overwhelms the narrower channels. Flooding has been most severe at the Muddy River, where three floods in the past decade have caused tens of millions of dollars in damage to transit systems, buildings, and public spaces. *[see MAP of Stony Brook culvert]*

Many **communities are disconnected from nearby waterways**, because of poor landscaping and design, lack of physical access, and inadequate transportation to the water’s edge. Perhaps even greater than the logistical barriers are psychological barriers. Many residents have not been introduced to the beaches and other waterfront resources as if they were their own; building a sense of civic ownership is important not only for the sake of fairness, but also for the sake of stewardship and community-building. Near all of Boston’s waterways, fragmented and uncoordinated land use undermines the continuity of natural and civic spaces. Industrial uses, large-scale commercial and entertainment activities, and highways and major roads create an unreliable and often unattractive path to the water’s edge. Before waterfronts were considered a precious urban amenity, they were considered places to locate noxious businesses that could use the water for energy or release large volumes of water and other wastes conveniently. That history often prevents residents from knowing the city’s waterways as the resources that they are.

Access to land right along the banks of the harbor and rivers is also limited by **complicated ownership patterns**. The Harborwalk – a decades-old effort of public and nonprofit entities to create a continuous walkway along the 49-mile stretch of the waterfront – is inaccessible at about half of the spaces along the water. Chapter 91 of the Massachusetts Public Waterfront Act of 1886, as amended in 1990, requires private developers to provide public access to the water’s edge, but is only applicable when construction is being done. Existing inaccessible places are “grandfather” and do not need to provide access until significant renovations are undertaken.

Boston lies downstream of most communities in the metropolitan area, burdening the city with the pollution discharged by other communities– as well as the consequences of the reluctance of other communities to make changes in their water and sewage practices and to contribute to cleanup and enhancement efforts. *[see SIDE Boston lies downstream]*

Actions

The challenges for the federal government include . . .

- **Develop a comprehensive plan for access to the Boston Harbor Islands National Park.** The Boston Harbor Islands Partnership in 1999 released a master plan for the development of the islands into a national park. Those plans call for a mix of activities and development projects that include educational, scientific, cultural and historic, outdoors recreation, restaurants and commercial activities, and special events. All of these projects require major efforts to improve transportation access – improvements both in the land access from inland Boston and in the boat access from the water’s edge to the islands. *[see SIDE harbor isles] [see MAP of harbor islands]*

The challenges for the state include . . .

- **Continue efforts to improve access to Boston Harbor.** Boston Harbor is a resource not only for the people in the communities along the harbor’s edge but for the entire Greater Boston Region. The Department of Environmental Protection, Massachusetts Bay Transportation Authority, and Metropolitan District Commission play a major role in providing, maintaining, and improving access to the many resources at the harbor’s edge. *[see SIDE Our Central Park]*

- **Continue to work with the City regarding Municipal Harbor Plans.** All new construction and buildings that are being substantially renovated are required to obtain a “Chapter 91 License” from the Department of Environmental Protection. The state should work with the City on individual cases through the Municipal Harbor Plan process.

- **Improve public transit service to the water’s edge.** A critical part of improved waterfront access has to be mass transit and bicycle network improvements. Possible creation of a new Aqua Line trolley that runs from Forest Hills Station to the University of Massachusetts would provide a strong connection across the city. Improvements in the Red Line – in the design of the transit nodes and in the development of comfortable paths and shuttles from stations to waterfront connections – would also enhance access. The development of special shuttles to the waterfront could also make the harbor open to all Bostonians.

- **Improve water transportation within the city and throughout the region.** Boston has a history of water-based travel that had been lost in recent decades. Over the last several years, however, people have rediscovered the convenience – and enjoyment – of traveling in and around Boston by boat. Still, the routes are not seamless and there are not routes to serve all of Boston’s waterfront neighborhoods. Using the information compiled in the BRA’s recently-completed Boston Inner Harbor Passenger Water Transportation Plan, the Massachusetts Bay Transportation Authority and Massport should establish new routes within the city and throughout the region to create a seamless network of water transportation.

- **Continue efforts to provide connected recreational spaces along the water’s edge.** Recent years have seen the Metropolitan District Commission’s Back to the Beaches campaign, the construction of the Neponset River Greenway, and other efforts to provide recreational spaces along Boston Harbor and the city’s five rivers. Build on and coordinate with the City’s Harborwalk initiative to create a seamless network of paths and recreational spaces along all of Boston’s waterfront.

- **Build on the Massachusetts Watershed Initiative.** The Department of Environmental Protection has embarked on an ambitious effort to coordinate water resource protection and management at the watershed level. Continue to work with regional watershed associations to raise consciousness about watersheds and gather water quality and quantity data. Regulate development and waterworks projects with a focus on the longterm sustainability of the city's and the region's precious water resources.

The challenges for the city include . . .

- **Develop standards for waterfront design.** The City has already overseen major improvements in the appearance and functional design of the waterfront. The next job, as the City completes the 49-mile Harborwalk, is to summarize the best practices for waterfront projects to guide developers and government agencies in the next generation. Develop a "tool kit" for public and private developers of the waterfront. Include incentives and design standards for landscaping, signage, connections of paths, view corridors and vantage points, building frontage and public access.

- **Complete the construction of the Harborwalk.** The Harborwalk offers the greatest attraction of all for urbanites and visitors alike – a view of the water. The attractions of the waterfront are almost endless – walking, bicycling, sailing, fishing, picnicking, visiting historic and cultural attractions. The guiding principle behind waterfront planning is simple: providing seamless and attractive paths will produce the pedestrian traffic needed for lively public places. Rather than create a comprehensive "themed" playland, the City and other government and community organizations should continue to concentrate on making the waterfront as accessible as possible. The first priority should be to create new transit and bicycle connections from inland Boston and making the waterfront paths open and continuous. The City should always apply strict standards for proposed development along the waterfront, guaranteeing that even private spaces provide significant public spaces and amenities along the waterfront. *[see SIDE Harborwalk+]* *[see MAP of Harborwalk]*

- **Create river overlay districts.** To protect and enhance areas of the city with extraordinary qualities, it sometimes makes sense to use special legal structures and standards. In an overlay district, a set of zoning regulations is added to existing regulations in a well-defined territory. These special regulations help to promote specific goals and objectives that might otherwise get lost in the tangle of competing local interests. Cities and towns have successfully established overlay districts for rivers, mountain areas, transit nodes, areas vulnerable to storms, historic neighborhoods, and business and cultural areas. A river overlay district would require consideration of the many pieces of a river area – streetscape and urban design, transportation, housing, manufacturing, shipping, warehousing, environmental cleanup, development of parks and other civic facilities – in relation to each other. Initiatives to improve one portion of the area – such as river cleanup and development of parks and boat launches – would be supported by nearby efforts to enhance pedestrian connections, signage, or street definition. Or to take another example, decisions over how to redevelop obsolete warehouses of manufacturing sites would be coordinated with development of traffic circulation plans or systems of public access to the waterfront. Perhaps most important, the district could help coordinate the activities of the City of Boston, state agencies and authorities, and nearby municipalities. *[see SIDE river overlay district]*

The district might create new funding sources to finance common infrastructure and other development, such as roads, sidewalks, parks, landscaping, and cleanup, as well as specific

projects. The main purpose of the district would be to coordinate the planning and development activities of many different public and private entities by creating a planning process and a set of regulations to carry the planning forward into physical development.

- **Make physical connections between Boston’s rivers and nearby neighborhoods.**

Boston’s five rivers need to be opened to their communities to foster activities near the water. Simple design improvements that highlight the path to the water from nearby neighborhoods could dramatically link the river to the rest of the community. Strategic connections with bicycle paths would open the riverfronts to recreational riders around the region as well as neighborhoods. The development of parks and playgrounds, gardens, public art, places to sit, bridges and overlooks, attractive signage, gateways, and more transparent fencing near the rivers would also bring the neighborhoods closer to the rivers. The elimination of noxious overgrowth – such as the phragmites reeds along the Muddy River – is also essential to clean the rivers and make them visible to passersby.

- **Build seamless bicycle paths from inland parks to the water’s edge.** Boston boasts a number of bikeways across the city, including the Southwest Corridor Park’s Pierre Lallemont bicycle path, paths along the Emerald Necklace, and portions of Harborwalk, but they are not a well connected system. Starting with the South Bay Harbortrail, build bike paths that connect the city’s neighborhoods to its waterfront areas. Whenever possible, separate these paths from automobile traffic and incorporate traffic calming devices into roadway designs at crossings. *[see MAP of Southwest Corridor]*

- **Continue to develop municipal harbor plans** for the city’s waterfront areas in order to promote development that will increase public access to the harbor from all of the city’s neighborhoods. These plans should include provisions for pedestrian access, public amenities, balanced development based on citywide and neighborhood priorities. Because of the specific historic, economic, and geographic character of different waterfront communities, these plans must be developed with site-specific strategies that also respond to broader urban design principles.

The challenges for the non profit community include . . .

- **Continue advocacy efforts.** The Boston area’s several watershed associations have been instrumental in raising the consciousness of citizens and policymakers on the importance of watershed protection and management. In addition, they have been critical in gathering and analyzing data, organizing volunteers, and advocating for enforcement of environmental regulations. These groups should continue their work in partnership with State and City agencies and each other.

INITIATIVE: PARKS FOR BOSTON'S COMMONWEALTH

Despite their essential character as “man-made” environments, cities are only as good as the natural systems that weave throughout the neighborhoods, business districts, and transportation networks. Large systems of parks bring awesome resources near the homes of all people. Citywide park systems not only provide a “respite” from the rigors of everyday urban life, but also play a fundamental role in shaping the urban landscape and the character of the neighborhoods. Parks and natural spaces should be woven into the very fabric of all of the city’s neighborhoods – their parks, playgrounds, gardens, and wilds – to temper and shape the built environment everywhere.

Frederick Law Olmsted’s “Emerald Necklace” system of parks expresses the idea that citywide park systems are essential for both the quality of life and the ecological strength of modern communities. The challenge of our next generation is to build on the Olmsted legacy by continuing our restoration of the Emerald Necklace and extending the city’s green-space systems to reach even more of Boston’s communities. The common ground of parks and natural spaces – open to all, with a wide range of activities and experiences – offers a way to define Boston in ways that respect neighborhood integrity but also foster a larger citywide identity.

Vision

As Boston moves toward its fourth centenary, major citywide park systems should be extended in every direction. The primary goal should be to complete the restoration of the Emerald Necklace with improvements of critical nodes, edges, and design improvements of Olmsted’s system. The Emerald Necklace should be extended everywhere – beginning with the its extension along Columbia Road to Carson Beach as an “aqua” transit corridor that connects the green of Franklin Park with the blue of the Boston Harbor waterfront. The Charles-to-Charles connection would create a natural corridor for pedestrians and bicyclists from the new Gardner Street park up along the Brookline border and eventually reaching the Charles River near the Bowker Overpass. The cluster of green spaces in the heart of the city – Franklin park, Arnold Arboretum, Boston Nature Center, Hirambe Park, Forest Hills and other cemeteries – should be connected into a ubiquitous system of diverse, connected natural spaces. Meanwhile, the city’s parkways should recover their mission as places for people to enjoy nature when traveling with efforts to calm traffic and provide better spaces for pedestrians and bicyclists. *[see MAP of citywide greenspaces]*

Assets and opportunities

One of the great park-management successes of our time is the **restoration of the Emerald Necklace**. The Parks Department has undertaken a number of efforts to improve the connections between pieces of the Emerald Necklace, redesign critical pieces of the system, improve transit access, and recover “missing” pieces. *[see MAP of the realized Emerald Necklace]*

In recent years, the city has added **new green spaces** to its parks inventory. In 1999 alone, the Boston Nature Center opened a 66-acre nature preserve and facility at the site of the old Boston State Hospital, the City opened a new 90-acre Gardner Street park in West Roxbury, and the Boston Harbor Islands National Park Partnership announced its plans for new recreation and

educational spaces on its 30 islands. By 2003, with the Central Artery submerged underground, some 27 acres of new urban land will be available for a wide range of purposes including parks.

A number of efforts are under way to **improve public transportation access** to the city's park systems. The Parks Department has created a new pedestrian path from Forest Hills Station to the Arnold Arboretum, the MBTA has approved a new bus line from Forest Hills Station to the new Gardner Street park in West Roxbury, and planning efforts in East Boston and the South Boston Waterfront call for strong connections between transit stations and local parks and waterfront areas. The new Silver Line will provide connections from South Boston to Dudley Station. The East Boston master plan also calls for improvements at Maverick and Central Squares, which will improve connections to that community's waterfront and greenway.

A **diverse coalition of greenspace advocates** has brought new life to the city's parks, playgrounds, gardens, and wilds. The work of government agencies like the Boston Parks and Recreation Department and the Metropolitan District Commission, large-scale institutions like the Zoo New England, and nonprofit organizations like the Boston Natural Areas Fund and Boston GreenSpace Alliance have created a new vision of a city as a natural environment. The underlying ethos of these groups is the need to connect parks and natural spaces of everyday life. Rather than singling out parks as a separate aspect of urban life, these green space advocates have insisted that natural spaces be woven into the very fabric of the city.

Public support for parks and natural spaces has never been greater. Surveys conducted by the Trust for Public Land have found high levels of public support for increased investment in natural spaces – waterfront, major citywide and regional parks, neighborhood parks and playgrounds, gardens and wilds. The public shows a sophisticated understanding of how vital natural spaces are to the overall quality of life in Boston and the Commonwealth. *[see SIDE public opinion on parks funding]*

Federal, state, and local governments have joined with community groups to **support the acquisition and protection of natural spaces**. The Clinton Administration's "livability agenda," the MDC's substantial park acquisition fund, and the City's cooperation with the State on preserving urban wilds like Hellenic Hill in Jamaica Plain, signal an important advance in the understanding of the relatedness of environmental and urban issues. The Community Preservation Act, now under consideration in the state legislature, also enjoys high levels of support in Boston and other communities.

Barriers and challenges

All of the citywide and regional park systems have **disconnected pieces** that undermine the access and character of the park system. State and local departments have already made efforts to restore connections along the Emerald Necklace, but numerous challenges remain at Charlesgate, Back Bay Fens, Forest Hills, Arborway, Columbia Road. *[see SIDE emerald necklace improvements]* In addition, other potential systems remain largely unconnected to the larger system including the Charles-to-Charles corridor, the Neponset and East Boston Greenways, and the parks in the Heart of the City – which includes Franklin Park, the Arnold Arboretum, the new Boston Nature Center, and nearby cemeteries. *[see MAP of East Boston Greenway]*

The major initiatives needed to improve the city's citywide systems **cost more money** than is now available for parks and natural spaces. The Parks Department's annual budget of \$9 million does not provide adequate funds for maintenance and programming – not to mention acquisitions. Even if it is used to leverage other funds from other public and private sources, the

City's annual parks acquisitions budget of \$250,000 pales in comparison with the outlays of other cities.

Many elements of Boston's citywide parks systems have **inadequate transit access**, undermining not only use of the system but also stewardship of those pieces and the development of the constituencies needed to promote their development.

A related challenge is that the design of large parks are subject to **pressures from users and operators** and threaten the longterm beauty and accessibility of these spaces. Major festivals, rallies, concerts, and athletic events often overwhelm the Charles River Esplanade, Boston Common, and Franklin Park. Caribbean, Puerto Rican, Kite festivals, and Fall Fest, to name a few, have become some of the most popular events in the city. Traffic, parking, provision of basic amenities like toilets, and cleanup are the greatest challenges to these spaces. If these public places are to avoid being "loved to death," the City needs to identify other places where these events and activities can take place.

Many of the pieces of Boston's citywide parks suffer from **inadequate landscaping and inadequate design**. The entrances and edges of Franklin Park, the Boston Nature Center, and to a lesser extent the Arnold Arboretum do not invite passersby or convey the grandeur of the spaces inside. These and other parks – like the new Pope John Paul II and Gardner Street parks – need to be more inviting in order to attract visitors and improve nearby neighborhoods. *[see SIDE articulation of large spaces]*

Because much of the city has grown up around the Emerald Necklace, much of the system is subject to **automobile pressures** that were not envisioned when the systems were created. Cars dominate major natural spaces like Franklin Park, the Arborway, the Muddy River's connection to the Charles River, the Riverway and Jamaica Way, and Columbia Road. Automobile access must be accommodated in these areas and on other streets near major parks, but enhancing pedestrian and bicycle spaces is critical to the public enjoyment of the parks and the enhancement of nearby neighborhoods.

A more practical difficulty is the **jurisdictional complexities** involved in the maintenance and operation of the Emerald Necklace, the Esplanade, the waterfront, and many other elements of the citywide system of green spaces. Boston's major natural spaces fall under a complex tangle of control by the City's Parks, Schools, Public Works, and Transportation Departments; the Boston Redevelopment Authority; state agencies like the Metropolitan District Commission; authorities and quasi-public agencies like the Massachusetts Turnpike Authority and Massachusetts Water Resources Administration.

Development pressures also pose urgent challenges to the city's parks system. Whether it is a private developer planning to build on an urban wild or the City feeling forced to utilize park land for a new school building site, there are always threats to existing parks and natural spaces.

Actions

The state should . . .

- **Ensure public transit access to major city parks.** The two major pieces of the city's natural system that lack adequate transit access are Franklin Park and the Boston Harbor. Fortunately, a precedent exists for strong transit access to these places – the former trolley along Columbia Road. In 1998, a special shuttle from Forest Hills T station to Franklin Park ran for weekends; the \$6,000 expense was financed by the Franklin Park Zoo and the City's Transportation and Parks departments. But that experiment needs to be expanded, first to all

weekends and then to more permanent transit connections. If a new trolley system extended from Forest Hills Station through Franklin Park and Columbia Road to the University of Massachusetts, access to both Franklin Park and the harbor would be dramatically enhanced. Crosstown transit for non-park trips would also be enhanced dramatically. Another major transit improvement would be the extension of the Silver Line down Blue Hill Avenue from Dudley Square. The Mayor's efforts to improve Blue Hill Avenue from Grove Hall to Franklin Park have already yielded impressive investments in business and residential development. Supplementing those improvements with a transitway down Blue Hill Avenue would create a direct connection between Grove Hall, Franklin Park, and the Neponset River Reservation. *[see MAP of Franklin Park]*

- **Improve bike and pedestrian paths along the parkways.** The Metropolitan District Commission's parkway system already provides beautiful, treed connections to many parks and other resources – but they are automobile-oriented and not bicycle-friendly. The MDC should develop parkway design standards that emphasize bicycle and pedestrian use, and then rebuild the sidewalks and paths to those standards. Ensure that the connections and crossings throughout the system are safe and accessible. Provide signage and maps that display the parkways' connections to the Neponset River at Mattapan Square, the Charles River and the Gardner Street park in West Roxbury, and Stony Brook Reservation in Roslindale and Hyde Park.

- **Work with City agencies to create one or more fairgrounds to accommodate the demands of major festivals and large events.** By providing large, accessible fairgrounds where large groups can gather without being a burden on surrounding neighborhoods, the City will be protecting its existing assets while investing in vital new assets. These fairgrounds could serve as playing fields when large events are not scheduled. These events should provide adequate parking facilities, as well as shuttles and other connections to transit nodes. Possible sites identified by the Parks Department include Readville Yards in Hyde Park, the former Boston State Hospital site in Mattapan, the South Boston Waterfront, the Allston Yards, the University of Massachusetts at Columbia Point in Dorchester, and sites along the Melnea Cass Boulevard and Columbus Avenue corridor in Roxbury. *[see SIDE events and festivals]*

- **Develop a plan to enhance and manage Stony Brook Reservation.** Stony Brook Reservation is an untapped resource for people throughout the city. The forested park boasts mountain biking and hiking trails, picnic areas, and places for quiet walks. But the access to the reservation is limited at times and the trails need improvements. The Metropolitan District Commission should develop a plan to actively manage the reservation and hire a staff member to carry out that plan. *[see SIDE Stony Brook Reservation] [see MAP of Stony Brook Reservation]*

The city should . . .

- **Extend the network of citywide parks** – The character of Boston's citywide parks systems was established in the nineteenth century when Frederick Law Olmsted led a team of planners and engineers to create the Emerald Necklace. As important as it is to maintain and enhance that system, it is also important to build on it. Several developments in recent years provide opportunities to extend the Emerald Necklace into a broader network of natural spaces, as well as add new natural spaces to the system.

One of the greatest opportunities is presented by the closing of the Boston State Hospital, which lies to the south of Franklin Park. A community-based planning process has produced ambitious plans for creation of a new Boston Nature Center, to be operated by the Massachusetts Audubon

Society, as well as housing, offices, and other environmentally sound developments. [see *SIDE Boston Nature Center*] [see *SIDE Heart of the City+*] [see *MAP of Heart of the City*]

The Charles-to-Charles Initiative is another vital project for connecting Boston's natural spaces. The Charles River defines both the northern and southern borders of Boston. The source of the Charles River lies at Boston Harbor by Beacon Hill and Back Bay, continues along Allston/Brighton and Cambridge, wraps around Newton, and connects to Boston's south at West Roxbury. More than a quarter century ago, parks visionaries called for Boston, Brookline, and Newton to use their resources and authority to acquire or protect green spaces between the northern and southern edges of the Charles River. The Charles-to-Charles document, underwritten by the Boston Conservation Commission, maintained that protection of properties along this corridor were essential to strengthen the seamlessness of the area's natural spaces, provide adequate recreational areas for the region's underserved residents, shape the character of urban development, preserve existing natural spaces, conserve wetlands, and coordinate appropriate development. [see *SIDE Charles-to-Charles+*] [see *MAP of the Charles-to-Charles*]

Blue Hill Avenue offers another promising extension of the existing citywide parks system. Now a disconnected thoroughfare connecting Roxbury's Grove Hall in the north with the Town of Milton in the south, Blue Hill Avenue offers a unique opportunity to improve transit access and natural spaces at the same time. On the northern portions of the avenue lie some of the greatest green spaces in the city, such as Franklin Park, Hirambe Park, the Boston Nature Center, Forest Hills Cemetery. At the southern end of the avenue lies the Neponset River and, further south, the Blue Hills Reservation. Blue Hill Avenue could become the main "green" corridor in the city, linking the neighborhoods of the city's geographic center with the priceless water and reservations to the south.

- **Fix the broken nodes of the citywide parks system.** The critical challenge of a citywide system of natural spaces is to repair the intersections where large gaps discourage users from walking, running, and bicycling from one natural space to another. These gaps are usually created by destructive placement of highways and high-volume roads, which create an intimidating and dangerous environment for people not using cars. The key nodes and possible responses, from north to south, follow:

- *The Charlesgate Underpass Park.* Now marred by outdated design and confusing traffic patterns on the Bowker Overpass (which connects Boylston Street with Storrow Drive), this park that straddles Commonwealth Avenue could provide a lively civic space that connects the Muddy River and the Charles River. The eventual replacement of the heavy-looking Bowker Overpass with a sleeker version will allow greater light in the parks below. Creation of well-differentiated spaces in the parks is critical, as is highlighting the beauty of the meandering Muddy River. Traffic noise from the Massachusetts Turnpike should be shielded from the park, but the shield should be transparent to allow light and views of the Pike. Building some kind of pedestrian access over Storrow Drive to the Charles River Esplanade – a foot bridge is one possibility – would foster better pedestrian circulation.

- *Riverway and Jamaicaway connections to Olmsted Park .* Crossing these former parkways poses dangers to pedestrians and bicyclists. Enforcement of the road's 30-miles-per-hour speed limit is unlikely without major redesign or allowance of parallel parking at select times. Placement of traffic signals along these roadways is critical to improve safety and connections between the neighborhoods of Mission Hill and Jamaica Plain and their parks.

➤ *The Arborway.* The stretch from Jamaica Pond to the northern tip of the Arnold Arboretum is dangerous for pedestrians and bicyclists because of the speed of automobile traffic. One solution would be to close off automobile traffic on the so-called service lanes – either permanently or during peak recreation periods like weekends and holidays. Strategic placement of traffic signals is also critical to improving this node. Traffic studies show that the volume of traffic does not require both the central and service lanes.

➤ *The walkway from Forest Hills Station to Franklin Park.* This quarter-mile stretch is dangerous and unpleasant for pedestrians and bicyclists because it does not provide seamless paths that are separated from the high-speed automobile traffic. Construction of such paths, along with enhancements of the traffic circle by the park and the construction of an attractive gateway to the park, would make a dramatic impact. Development of the vacant parcel on the south of the park rotary could provide a regional attraction.

➤ *Circuit Drive in Franklin Park.* The road that runs from west to east accommodates cars and buses better than pedestrians and bicyclists. Construction of a pedestrian and bike path for the full length of Circuit Drive is essential to the park’s attractiveness and safety. Longterm plans could include construction of a special trolley through the park from Forest Hills Station to Columbia Road and then to Columbia Point.

➤ *The Columbia Road entrance to Franklin Park.* Improve the entrance to the Franklin Park Zoo from Blue Hill Avenue with a dramatic gateway could improve the overall business and residential character of the Franklin Field community. In the long term, making this node a signature space could create momentum for building a special transitway from the Zoo to Columbia Point.

➤ *Columbia Road corridor.* Redesign and rebuild Columbia Road as a truly "green" connection between Franklin Park and Boston Harbor. Take advantage of the roadway's width, and build tree-lined bicycle and pedestrian paths. [see *SIDE Columbia Road+*] [see *MAP of Columbia Road*]

- **Enhance the design of citywide parks.** Design is a critical element of the improvement of all citywide systems. Over the years, the needs of many parks, parkways, and other natural spaces have changed with shifts in recreational patterns and the makeup of nearby communities. The most dramatic change of recent years is the increased reliance on automobile transportation and the dispersal of community life. The automobile has created a zip-in-and-out approach to park use, which undermines efforts to make the park more attractive for everyday users. The qualities that are essential for neighborhood users – attractive approaches, good fencing and other “edge” design, and well-marked internal spaces – get lost when people drive to a single destination in their cars and then leave without exploring the whole park. Many edges of parks do not create positive connections with pedestrians, bicyclists, and transit users. Parks need to be redesigned to present an attractive “face” to drivers and transit users as well as pedestrians and bicyclists. The edges of parks should provide an attractive view inside the park, many entrances that invite passersby into the park, strong signage that guides people to specific attractions, and imposing landmarks that help orient people to the park and its internal spaces. Inside the park, pedestrian paths must be constructed to provide many choices for people walking or bicycling. Each path should lead to a special place that can be a significant destination or a worthwhile resting spot or place to pause for a limited period. Throughout the park, visitors should be able to find benches, public toilets, and other appropriate amenities.

- **Develop a maintenance master plan for all city parks.** The Boston Parks and Recreation Department has made major strides in the improvement and maintenance of city parks. But to care for a growing inventory of park spaces – which will soon include new parks at Gardner Street, the Boston Harbor Islands, and along the surface of the submerged Central Artery – requires major new resources and systems.

Businesses and community institutions should . . .

- Identify ways that improvements in the citywide system of parks can enhance their longterm futures – and commit to promoting those improvements. Three times in the 1990s, flooding of the Muddy River caused tens of millions of dollars of damage to hospitals, museums, and universities located in the Fenway and Mission Hill. As a result of these extreme expenses, these organizations forged alliances to press for dredging of the Muddy River. Other public, private, and nonprofit institutions are also affected by problems in Boston’s Emerald Necklace. The communities surrounding Franklin Park would benefit from enhancements to the design and maintenance of the park, as well as improvements to the traffic patterns through and around the park. All over the city, the fortunes of institutions can be enhanced with improvements to the city’s system of parks and natural spaces. Institutions should be challenged to fight for improvements in parks that enhance their neighborhoods and business operations.

Advocacy groups should . . .

- **Develop databases and other materials that document the short- and long-term challenges for citywide park systems.** Advocacy groups like the Boston Greenspace Alliance and the Emerald Necklace Conservancy have a unique role as independent overseers of Boston’s citywide park systems. They can compile and disseminate data that helps to develop community consensus for major improvements in the system. They should seize that role to help the Parks Department provide leadership on the restoration and extension of the system.

INITIATIVE: INVESTING IN OUR PARKS AND NATURAL RESOURCES

Well-designed parks and natural spaces all require significant financial resources. Parks can no more be left to “natural” processes for everyday care than can houses or neighborhoods. Even some of the “wilder” elements of the city’s natural environment – such as urban wilds, gardens, and rivers – require significant resources for everyday maintenance and use. Paths and stairs need to be built and repaired. Hills and riverbanks need to be landscaped and stabilized. Litter needs to be picked up. Playing fields need to be repaired. Young trees need to be nurtured, and mature trees need to be trimmed. Boston possesses all of the tools it needs to take on these tasks – dedicated and concerned citizens, progressive city and state agencies and policies, and active nonprofit groups. The missing piece is funding. Boston must obtain greater financial resources to build on its natural and civic assets.

Vision

Boston should develop the fiscal tools it needs to place it on a par with other cities for funding the acquisition, design, maintenance, and programming of parks and natural spaces. As a short-term goal, Boston should commit itself to providing at least 1 percent of its total operating budget to parks. Boston needs significantly more money for major investments in parks and natural spaces in all neighborhoods, as well as a steady revenue stream to maintain natural spaces without having to pit one neighborhood against another. Every community in the city should have great places for people of all ages to enjoy active and passive recreation year-round. Following the “best practices” of cities like Chicago and Minneapolis, which devote significantly more funds to design and maintenance of parks all over the city, the city should adopt a financing system that pays for aggressive programs of investment and maintenance.

Assets and opportunities

One of the greatest assets that Boston possesses is that the **public supports property tax increases** of up to one percent to protect parks and natural spaces, preserve historic resources, and pay for efforts to clear the air and water. In a survey commissioned by the Trust for Public Land, 59 percent of respondents said that they would support a tax increase to create a Community Preservation Fund that provides localities with money for development of parks and trails, acquisition and maintenance of nature preserves, preservation of historic sites, and improvements to air and water quality. Voters in every region of the state said they would support such a levy; the greatest margins of support included Boston and southern and central Massachusetts. Some 90 percent of all respondents favored passage of the state Community Preservation Act, which would give local voters the authority to raise money for natural and historic resources.

Bostonians have developed a **consensus on how the money should be spent**. Voters have expressed a strong support for extra government spending for projects that yield clear results. Voters also show a strong appreciation for projects that use waterfront and green space improvements to enhance the overall quality of life and economic character of the neighborhoods. Projects to enhance parks and natural spaces can be defined clearly and completed within reasonable periods of time to demonstrate to the public the results of their tax and other contributions. Programs to improve citywide parks, the Boston Harbor and the city’s

five rivers, and neighborhood parks, playgrounds, gardens and wilds – especially if they are designed to insure equity in investments – could create positive impacts for every neighborhood in the city.

Boston benefits from one of the nation’s most groups of **active and committed parks advocates**, ranging from neighborhood organizations to corporate partnerships. Most of the resources are devoted toward capital expenditures, with relatively few funds available to support maintenance costs. (Detailed accounting of these contributions is not available.) The most active friends groups speak for the most visible and heavily used parks – such as the Public Garden, Commonwealth Avenue Mall, Franklin Park, and the rest of the Emerald Necklace. But other groups are active all over the city including The Boston Natural Areas Fund which works to secure funding for new parks, wilds, and gardens; and numerous watershed associations that work diligently to promote the cleanup and development of Boston’s harbor and five rivers.

Barriers and challenges

Massachusetts and Boston **governments have devoted less money, historically**, to parks and other community resources than other cities and states. Boston’s legacy of institutional independence – which has shaped cultural and artistic organizations for more than a century – extends as well to parks and other community resources. While acknowledging the importance of private and nonprofit investments, the next generation needs to develop a new social compact in which public monies play a greater role in strengthening public places while private and nonprofit organizations make their spaces more accessible to people across the city.

Parks **need a steady stream of revenues for maintenance** as well as new acquisitions and enhancements. The Parks Commissioner has stated that any new additions to the city’s inventory of parks, playgrounds, wilds, and gardens must be accompanied by workable commitments to stewardship. The Parks Department spends 49 percent of its revenues on maintenance of spaces including cemeteries. The Commissioner’s policy provides a prudent reminder that parks are only as good as the care and resources devoted to their maintenance. Appropriate portions of any new revenues for parks and natural spaces must be devoted to renovation and upkeep of parks all over the city.

Whatever funding devices are adopted to improve urban spaces, parks and natural spaces face **competition with other civic causes** for funding. Because of dramatic cutbacks during previous periods of fiscal retrenchment, parks are not the only kind of investments that have lagged in recent years. Housing, cultural activities, schools, family and social services, and preservation also need more funding to make their full contribution to a better city. All of these separate needs must develop sophisticated strategies to avoid a zero-sum game in which investment in one area comes at the expense of another.

Expenditures for parks have varied greatly over the twentieth century. During economic downturns, parks have borne a disproportionate share of budget cuts because they have been viewed as less “essential” to the economy and life of the city. Parks expenditures have ranged between 0.6 and 1.0 percent of total city expenditures in the past 15 years; today, the figure is 0.7 percent. Downturns have occurred during the two world wars, the Great Depression, and the aftermath of the passage of the Proposition 2½ property-tax limitation measure. Despite recent increases in the operating budget for the Department of Parks and Recreation, in real terms the current budget is near an all-time low for the century. According to a study by the Winthrop Group, the city’s park acreage of 2,200 is about two-thirds of the highest levels of the 1950s.

Including the expenditures of the Metropolitan District Commission, spending on parks and recreation lies near the mean in a sample of the nation's largest 25 cities.

Boston's parks are used more intensely than the parks of almost all other cities in the U.S. Some 10 million tourists come to Boston every year, putting an especially great strain on parks in the communities of Charlestown, the North End, Beacon Hill, Downtown, Back Bay, the South End, and the Fenway. The parks are also used by 1 million commuters who come into the city daily. Boston is one of only three cities in the U.S. – Washington and San Francisco are the others – with more jobs than residents.

The Parks Commission negotiates important community benefits with developers, but usually the **Commission negotiates with developers after other city agencies and boards have already obtained benefits** for housing and other benefits. The Commission is unable to get as many benefits as other agencies because it stands last in line.

Actions

The state should . . .

- **Pass the Community Preservation Act.** This state initiative provides cities and towns with greater options for raising money for parks and natural spaces, historic resources, and neighborhood business districts. The Act would provide Boston with some of the tools it needs to improve its public realm, and encourage neighboring cities and towns to do the same. *[see SIDE CPA]*

The city should . . .

- **Establish formal maintenance and renovation cycles for all of the city's parks, playgrounds, gardens, and wilds.** Tot lots should be overhauled every 10 to 12 years, playing fields every six to seven years, passive spaces every 15 to 20 years. Parks Department officials should work with community organizations to determine priorities for overhaul and maintenance of parks and natural spaces.
- **Increase the capacity of the Department of Parks and Recreation.** Dramatically increase the staff responsible for maintenance of all parks across the city, from 25 to 60 for historic parks along the Emerald Necklace and from 60 to 120 for all of the other parks in the city.
- **Use new financial tools to finance parks acquisition and management.** The Trust for Public Land has identified a number of creative and fiscally responsible fiscal tools. Lease-purchase agreements allow a government agency to pay for acquisition of a park over time, reducing the front-end costs as well as interest payments. Certificates of participation represent a variation of the lease-purchase tool, with tax-free purchase arrangements designed to encourage private investors to take part in greenspace acquisition. Lease-revenue bonds involve nonprofit park foundations that acquire land and lease the park back to the city. Mitigation involves getting developers to provide parks as payment for the damage that their projects are likely to cause the environment. Business improvement districts allow associations to pay for parks and other improvements with the extra tax revenues that receive when property values rise; the government loans the association the money needed for the improvements and later gets the money back from the flow of higher tax revenues. *[see SIDE parks funding options (to come)]*
- **Recognize and support friends groups more aggressively as they work to improve parks, gardens, and wilds all over the city.** The City has no comprehensive assessment of the

contribution of friends and other community contributions to Boston's parks and natural spaces. In order to honor the contributions of these organizations – and help them play a greater and more consistent role in the life of the natural city – the City needs a comprehensive annual survey. It also needs to work with these organizations to set goals, assess achievements, and develop strategies to make parks and natural spaces an integral part of community development.

- **Appoint a liaison to work with the Parks Department and the Boston Redevelopment Authority.** Over the years, the responsibility for parks planning and development has shifted back and forth from the BRA and the Parks Department. To assure that parks development occurs within the overall context of community planning, the BRA should hire a fulltime team of liaisons to build parks planning into all other planning. Parks liaisons should to promote parks issues early in the negotiation process over community benefits from development.

Businesses and institutions should . . .

- **Invest in parks and natural resources.** Across the United States, cities and towns have adopted a number of private-based new sources of money for parks and civic spaces. One of the most promising is payments in lieu of taxes. PILOTs provide a useful tool to encourage non-profit, tax-exempt organizations to contribute to public improvements. Such payments are negotiated between the City and colleges and universities, hospitals, churches, non-profits, private schools, and exempt organizations. Donation of land for parks and other public purposes is the most direct form of PILOTs. Development of maintenance plans for green spaces near these institutions is another possibility. Yet another approach would be to allow free public access to nonpublic property. Assistance with programming public spaces could also provide a way for non-profits to make contributions to public needs.

- **Establish clear standards of performance for partnerships.** As the City comes to rely more on partnerships to keep up parks, playgrounds, and other spaces, it needs more formal and comprehensive tools to monitor those partners. The City should perform an audit of existing partnerships to determine how well agreements are spelled out – and how well partners meet those obligations. Quarterly budgets and work records should be required of every institution that has agreed to provide services to parks, playgrounds, and other natural spaces. The City should consider requiring partners to post bonds to assure full performance of obligations under agreements with the City and billing partners that do not fulfill their responsibilities.

SUPPORTING INITIATIVE: PLAYING FIELDS FOR THE NEXT GENERATION

The city's natural environment takes many forms besides the places where people gather to enjoy the diversity and richness of landscapes and rivers, wilds and gardens. As important as those natural spaces are to the definition and life of the community, they are not enough to provide spaces of active, organized recreation for Boston's residents. People need places to play games – baseball and softball, basketball and football, soccer and field hockey, tennis and volleyball, volleyball and gymnastics, and dozens of other games as well. Young people need to get outside and exercise their lungs and limbs, test themselves in competition against their peers. Older people need ways to diffuse the tension of the work week by playing games. Communities need places where people play for the pure joy and expression. It is with play that we find release, artistic expression, intent concentration, and communal identity. Competitive sports may not be for everyone, but they are vital to the health of Boston's people. Boston needs to provide the places to play, so that everyone is encouraged to play and make fitness a part of their lifestyle.

Vision

Over the next generation, Boston will become an ever more diverse community – and that diversity will be reflected in the variety of games that young and old play. Boston must provide places for people to play all the games that give definition to people's lives. Every community should enjoy access to playing fields for all the major sports, as well as other popular pastimes. City Hall should coordinate the acquisition, development, maintenance, and scheduling of playing fields among various state and city agencies, leagues, schools, and clubs. Playing fields should be part of a larger citywide network of parks and civic spaces that encourages people to venture out to explore their neighborhoods – and the whole city.

Assets and opportunities

Boston already possesses a **large network of playing fields** that provides places to play for thousands of people a year – and the City's Parks Department is building more each year. *[MAP of playing fields (to come)]*

The city also has a vast network of **sports people with a vast knowledge** of leagues, fields, scheduling, and other elements of a comprehensive system of playing fields. Boston's organized sports community is composed of entrepreneurs who have learned the needs of a wide range of sports and groups and what fields might be available for games and practices. These sports organizers have called for indoor sports complex for the winter months, better track facilities, use of safe artificial turf to protect fields from damage, and more sailing and boating centers.

The greatest asset is a **growing interest in sports** as girls and women are offered equal opportunity and new residents bring new games and passions to the playing fields. Since the advent of Title IX in 1972, the participation of girls and women in sports has increased dramatically. Before Title IX, girls were only 1 percent of all high school athletes; after 25 years, girls are 40 percent of all high school athletes. In the same period, Boston has welcomed diverse populations of immigrants who have brought with them games from soccer, rugby, and even cricket.

The city also owns many **underutilized fields and vacant parcels** that could complete the city’s playing-field network. Identifying which parcels would be most appropriate for new playing fields should be part of the larger process of developing these spaces for housing, industry, cultural activities, transportation, and other uses.

In addition, there is a **growing awareness about the importance of exercise** for health. The ubiquity of magazines, school programs, hiking and other weekend recreational activities, and health clubs is powerful testimony to the importance that Americans place on fitness. So, too, is the popularity of professional sports and annual events like the Boston Marathon and the Charles River Regatta. Medical experts have argued that recreational opportunities are critical to the physical and psychological wellbeing of people of all ages. A number of new City initiatives are designed to help young people to develop good health habits. The Healthy Choices Program, a school-based program for students in the fifth to eighth grades, is designed to promote good nutrition and physical activity among young people. Under “FitNut” – short for Fitness and Nutrition Program – Boston Medical Center health professionals work with college students to provide nutrition and exercise activities for inner-city girls with weight and health problems. Planet Health, a middle-school nutrition program, has produced positive results reducing obesity. *[see SIDE playing fields and exercise]*

Barriers and challenges

The greatest barrier to development of a citywide system of playing fields is **lack of coordination of existing facilities**. The Boston Youth Sports Congress, composed of more than 1,500 members, has held hundreds of meetings to develop an agenda for the next generation. To meet the needs of Boston’s growing youth and adult programs, the Congress or some other entity inside City Hall needs more authority to coordinate the development and scheduling of playing fields.

Once the city addresses the coordination issue, it can address the issue of **inadequate space** for competitive sports. The City should develop a longterm plan for acquisition of new playing fields that meet the needs of all competitive sports, with a special attention on the sports of young people and the sports that have attracted growing numbers of players.

The **quality of the fields varies** in terms of maintenance, convenience, and design. Many of the city’s fields go unused because of their inconvenience or inadequate playing condition. Transportation to fields is often difficult, especially for young people, because many leagues hold their games all over the city. League officials report that they know which fields are superior and which are deficient – in terms of design, upkeep, and convenience – and they avoid the lower quality fields when scheduling games. A major effort to rehabilitate fields and coordinate scheduling to match leagues with convenient fields would put more fields into use.

Another barrier is the **lack of a citywide organization** that speaks for competitive sports people as a constituency. League officials are usually so intent on meeting the seasonal needs of their teams that they do not make common cause with other sports organizations. Many sports leagues, in fact, compete with each other over the design and allocation of space, undermining their collective authority as voices of youth and adult recreation.

Actions

The state should . . .

- **Address issues of legal liability.** By establishing standard non-liability agreements, and perhaps providing other incentives for owners of playing fields to allow their use by others, the City would make the best use of its existing resources. Many league officials do not use fields that would be convenient because of uncertainty about their legal status should players get injured in games or on the way to games. The playing fields coordinator could oversee the implementation of the legal non-liability program.

The city should . . .

- **Establish minimum standards for access to playing fields.** National Recreation and Park Association has set a standard of one playground and one basketball facility for every 5,000 residents, one tennis facility and baseball/softball facility for every 3,000 residents, one swimming pool facility for every 20,000 residents, and one recreation center for every 50,000 residents. The national standard for parks is 10 acres of public open space for every 1,000 persons in urban areas. Overall, Boston has 9.6 acres of park space per 1,000 people, which comes close to meeting the standard. But the shares of park space vary from a low of 0.6 acres per 1,000 persons in Chinatown and 1.4 acres per 1,000 persons in the South End to a high of 26.3 acres per 1,000 persons in Hyde Park.

- **Develop new models of acquisition, design, and maintenance.** Following the creative financing strategies for parks and natural spaces, the Parks, Schools, and other City departments could develop a variety of public, private, and nonprofit funding tools to improve the provision of playing fields around the city.

- **Develop full-day school initiatives that make better use of existing fields.** As Mayor Menino has developed national models for providing daylong educational opportunities with his 2-to-6 initiative, the City should consider developing experimental models for managing the school day. On an experimental basis, some schools could hold classes from 8 to 5, allowing students three “blocks” of time for classes, recreation, and vocational programs. A student might attend classes from 8 until 11, break for sports practice and lunch until 2, and then complete classes in the afternoon – or some variation of that mix-and-match schedule. Such an arrangement could put playing fields – and other school facilities – into active use more hours of the day.

- **Appoint a citywide playing fields coordinator.** Appointment of a new coordinator, who would manage the inventories of the Parks, Schools, and other City departments – as well as other facilities under contractual agreement with the City – would allow for the most efficient use of existing facilities. It would also allow the city to develop a careful analysis of what areas of the city are most in need of new facilities, what improvements can be made to transportation accommodations, and what strategies might be appropriate to maintain playing fields. The development of an updated database and scheduling standards would take much of the guess work out of the operation of leagues and school recreation programs.

SUPPORTING INITIATIVE: BUILDING NATURE INTO THE CITY'S FABRIC

The wealth of any community's environment extends beyond the public places of active and passive recreation. Many private and nonprofit organizations own parks, gardens, wilds, and playing fields that comprise a major part of the city's natural network. Access to these spaces is governed by a melange of laws, regulations, agreements, and informal practices. In addition, a whole range of natural elements – trees, private landscapes, and even back yards and parking lots – is critically impact to the ecological quality of the city. These spaces not only comprise thousands of acres, but also help to define the character of Boston's communities. They also offer a way for everyone in the city – homeowners, businesses, universities and other institutions – to become part of a greater civic fabric, as well as to respect the needs of the natural environment.

Vision

As the city celebrates its fourth centenary, Boston should build nature into every aspect of its planning and development. Boston's neighborhoods should offer beautiful and well-maintained parks, playgrounds, and gardens, but also protect urban wilds all over the city. The ecology of the community also should be promoted with a comprehensive plan for planting and caring for trees in every neighborhood. Over the next generation, Boston should commit itself to dramatically reducing impermeable surfaces in every neighborhood that lead to runoff, pollution of waterways, and flooding. Boston should develop a "green compact" with neighborhood associations, businesses and developers, and major institutions to insure that ecological concerns are built into everything that these entities do. Because the legal and informal practices governing these spaces varies, the City should develop a whole "menu" of interrelated policies that enhances these spaces, connects them with the urban context, and makes them available for appropriate use by all Bostonians.

Assets and opportunities

Boston set a national standard with its development of urban wilds in neighborhoods all over the city. The publication of the visionary report *Boston Urban Wilds: A Natural Area Conservancy Program* in 1976 established an agenda that drives the development of natural spaces to this day. The report by the Boston Redevelopment Authority defined urban wilds as unprotected areas in the city "that have retained or reestablished considerable natural character." By 1990, when the Boston Natural Areas Fund produced the only update of the urban wilds report, 26 of the 143 wilds identified in the report had received protection and pieces of 10 others were had received protection.

A number of **federal and state programs provide funds for the protection of valuable natural spaces** from development. The Land and Water Conservation Fund protects properties that have benefited from LCWF investments. The Intermodal Surface Transportation Efficiency Act and its successor Transportation Efficiency Act have provided funds for the enhancement of significant historic and natural spaces. The Massachusetts Urban Self-Help programs funded by the Open Space Bond Act of 1996 can be used to purchase conservation restrictions.

Boston's neighborhoods provide a **hospitable environment for tree-lined streets** that could play a major role in enhancing air quality. Trees are one of the most popular enhancements that residents seek for enhancement of public spaces in their communities. Boston's residents understand a truth that Allan Jacobs offered in his classic book *Great Streets* – that trees offer the single best strategy for improving the life of public spaces in cities. Trees help to clean the air, moderate the extremes of temperature, provide protection from the elements, and create a gentle appearance. In community meetings across the city, residents asked for more trees and a comprehensive strategy to connect those trees to improvements in public and private spaces alike.

The Parks and Recreation Department has embarked on a **major effort to count trees in every neighborhood of the city**. Volunteers in each neighborhood are trained at the University of Massachusetts at Boston and guided by Parks Department officials. Data are entered into city computers, where they are updated whenever new reports of tree plantings, damages, and losses are recorded. In the city's signature parks – like the Boston Common and Public Garden – trees are mapped and planned carefully to prevent a hodgepodge that would undermine the appearance of the parks.

Barriers and challenges

Many of Boston's urban wilds are **threatened by development pressures**. The growing need for housing, the development of new retailing spaces, the expansion of institutions such as universities and hospitals, and the growing demand for parking facilities have exposed many wilds to development. As the 1990 BNAF report noted, for many city agencies not only have no mission to protect natural spaces, but the agencies specifically target them for development. The BNAF reported that 83 of the wilds remained unprotected and more than 600 acres of wilds had been lost.

The **City has not coordinated its many agencies** in the preservation and development of urban wilds. Because of complex ownership patterns and legal relationships, the protection of urban wilds requires a multi-pronged citywide policy that has not yet emerged. Over the years, the title to wilds and the burden of planning has shifted from the Boston Redevelopment Authority and the Boston Conservation Commission to the Boston Parks and Recreation Department. The Parks Department has hired a fulltime coordinator for the city's urban wilds and has included wilds in the five-year plans required by the Commonwealth to receive state funding. But this urban wilds specialist has not become the point person for the City's larger urban wilds policy, with the authority to work with the BRA and other agencies at appropriate stages of the planning and development process.

The City faces severe **funding limitations to protect private property** from development. Many private property owners hold out to get the highest return on their investment, making it difficult for City agencies and nonprofit organizations to purchase land or negotiate agreements to assure protection and public access. The City's annual parks acquisition budget of \$250,000 is devoted almost exclusively to parks and playgrounds; even if it were devoted to wilds, it would be inadequate to leverage the funds that are needed to protect and enhance wilds. The City must adopt a multi-pronged strategy to pay for acquisition and protection of wilds. [*SIDE urban wilds (to come)*]

Many trees all over the city have been neglected by public agencies and private property-owners, with the result that many new trees struggle to survive and grow and the lives of many

old trees are endangered. The lack of a tree-counting initiative until three years ago has hampered the efforts of the Parks Department and other City agencies to address tree-related issues consistently in all neighborhoods. The City has been reactive; rather than taking the initiative on trees, it has tended to respond to community groups that can articulate their concerns to elected and other City officials. The result is that some streets have strong records of tree maintenance and acquisition, while others are spotty.

All over the city, **development projects have reduced the permeable surfaces** that help to protect against flooding and remove pollutants when the rainwater infiltrates. Buildings, driveways, roads, parking lots, and contaminated lots all trap water and produce run off that not only contaminates local waterways but also leads to occasional flooding.

Actions

The city should . . .

- **The Mayor should designate an official to coordinate the preservation and development of urban wilds throughout the city.** This official should implement an official policy statement from the city that governs the disposition of land and establishes a framework for working with private institutions. This official should be involved in the review of projects and policies of all development-related agencies of the city, including the BRA and the Departments of Neighborhood Development, Public Works, and Transportation. The official should be supported in his or her efforts to implement the priorities for preservation of wilds established in an update of the urban wilds report.
- **Formally adopt a “menu” of protection tools for urban wilds.** Take advantage of a full range of protection strategies, including acquisition, negotiated agreements with developers, and conservation easements. *[SIDE urban wilds protections (to come)]*
- **Develop plans in all neighborhoods to encourage public and private agencies to create more permeable surfaces to protect against runoff, flooding, and water pollution.** Following the model of Minneapolis, Minnesota, Boston should develop a strategy of streetscape improvements and maintenance that increases the overall share of permeable surfaces when possible. Driveways, parking lots, apartment complexes, retail establishments, college and medical campuses – all can be designed to absorb more rainwater when they are being constructed for the first time and when they come up for routine maintenance and rebuilding.
- **Develop a plan to plant trees on streets throughout the city.** Street trees have a dramatic impact on the “look and feel” of a street – but they also provide vital protection from wind, sun, and rain. The City should work with community groups in each neighborhood to determine where more trees need to be planted and to establish a reasonable schedule for implementing the plan.

Civic organizations should . . .

- **Update the urban wilds report to establish priorities for protection of properties in every neighborhood of the city.** The Urban Wilds Report, last updated in 1990, provides the agenda for public, private, and nonprofit groups to protect the city’s last remaining natural spaces. These spaces are best known to community residents. Community organizations should collaborate with the Boston Greenspace Alliance to make sure that the inventory of wilds remains updated and strategies to protect the wilds are known to people in government agencies, private and nonprofit institutions, and communities across the city.

Community organizations should . . .

- **Working with task forces in every neighborhood, identify specific places where planting and placement of trees would dramatically increase the area’s appearance and ecological quality.** The implementation of a plan for tree planting takes at least a generation to realize. Such a plan can only be realized if City agencies work with community groups to identify the specific places where new trees would make significant improvements to the community’s public spaces. Haphazard placement of trees will not advance the overall cause of greening the neighborhoods because those trees will lack the care they need to thrive. Trees should be located at critical gateways to the neighborhoods, on mixed-use commercial streets, in and around parks, and along residential streets. Trees should not only be planted for their own sake, but also to advance a broader community design agenda that includes drawing attention to “signature” spaces and calming traffic on major streets.

Chapter 3

SIDEBARS

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Articulation of large spaces

All across Boston, large spaces define the streets and the neighborhoods. How the edges of these spaces are designed can have a dramatic effect on the character of the larger community.

These large facilities – parks, cemeteries, university campuses, community centers, hospitals and health centers, stadiums, manufacturing plants, distribution facilities, utilities, rail and motor vehicle yards, working ports – take up parcels ranging from 10 to 500 acres. Their design is critical to the overall look and feel of the neighborhood.

Many of these large spaces are major attractions for the city and region and offer a great opportunity to show the best “face” of the community. Franklin Park, with the increasingly popular Zoo New England facing Blue Hill Avenue, is the largest park in the city. The hospitals at the Longwood Medical Area attract millions of visitors a year and dramatically shape the fortunes of adjacent neighborhoods. Campuses like the University of Massachusetts, Boston University, Northeastern University, and Harvard Business School also present an imposing face to the community.

A number of design standards should be applied to these large facilities:

- The “edges” of these facilities should be designed to feel accessible to the community. Fencing should allow passersby to peek into parks, campuses, and other attractive spaces. Cast-iron fencing provides just one way to allow some permeability of the edges. Whatever fencing and shrubbery is used, maintenance is critical to the overall appearance of the area.
- Large spaces should offer exciting buildings and landscape design that provides landmarks for the community. Buildings should offer a sense of place to the whole neighborhood. Strong architectural touches – spires, windows, ornamentation, grand entrances – can make even the most utilitarian building a sight to behold. Old structures such as the Jamaica Plain breweries, the Chestnut Hill Reservoir pump houses, and Fenway Park enliven the community. If their design included fewer flourishes, they would have a negative effect.
- Unsightly activities should be shielded from the public view as much as possible. Utility sheds, bus and rail yards, manufacturing spaces, parking lots and garages, and highway ramps should be buffered with more attractive development. Large-scale facilities, as much as possible, should provide pedestrian-oriented activities at the edges.
- Large spaces should provide continuity with the surrounding street grid and architectural styles. Most large facilities are cut off from the normal flow of traffic in the neighborhood. Under the “superblock” design approach of the 1960s and 1970s, urban street grids were eliminated on the campus of developments such as Charles River Park and various shopping malls. But to create a healthy flow inside and outside large-scale facilities, continuity of street grids is absolutely essential.
- Signage should provide elegant orientation to a campus and area. Especially when large projects are under way, residents and merchants are curious to know who their new neighbors are. The new Boston Nature Center evoked suspicions among neighbors because of the lack of good signage to explain the construction. Even longtime facilities need to provide guidance to users. The Arnold Arboretum’s signs provide eye-level maps that help visitors understand where they are and where they are going.

SIDE Boston lies downstream

Boston lies downstream

By the end of the 1980s, Boston Harbor was one of the dirtiest waterways in the nation. Decades of sewerage, increasingly contaminated runoff, and the polluted waters from the City's five rivers flowing into the harbor had taken its toll.

Now that the Deer Island wastewater treatment plant is up and running, the Harbor is a lot cleaner. According to the Massachusetts Water Resources Authority (MWRA), the water quality standard for bacteria counts was exceeded on only nine days in 1997 and seven days on 1998 – compared with 139 days in 1988. But there is still a lot to be done – in order to protect the quality of all of Boston's water resources, focus will need to shift from the harbor to the five rivers that empty into it.

At this point, each of Boston's five rivers are either contaminated by sewer connections, industrial discharges, and urban runoff, or unacceptably drawn down by excessive water use and dilapidated infrastructure. Efforts are underway to identify and eliminate the so-called "point sources" such as individual discharge pipes, but more will need to be done to alleviate the pollution caused by "non-point sources" such as runoff and eliminate low water flow conditions.

Both of these challenges are best understood in the context of a watershed. The U.S. Environmental Protection agency describes a watershed as "a geographic area in which all sources of water, including lakes, rivers, estuaries, wetlands, and streams, as well as ground water, drain to a common surface water body."

Development patterns and industrial activity affects both the *water quality* and the *water quantity* issues of individual surface water bodies. If a watershed has a high percentage of paved or "impervious" surfaces, rainwater will now seep into the ground and will instead flow across the surface and carry pollutants into nearby bodies of water. If a water-supply agency or company draws groundwater from the ground beyond the aquifer's ability to be recharged by rainwater, less groundwater will flow to nearby rivers and lakes causing low-flow conditions.

While point sources are easily identified and regulated at the local level, non-point source pollution and water "draw downs" are not. Boston can not enforce a neighboring municipalities' water usage practices or development patterns, and yet it must contend with the resulting water quality and quantity problems that affect the five rivers as they pass through the city on their way to Boston Harbor. Boston must manage the challenges of lying downstream of the entire Greater Boston area.

In effort to resolve these issues, the City of Boston must build on the good work of each of the rivers' watershed associations – and the State's watershed management program – to forge regional, watershed-level agreements with neighboring municipalities. Eliminating pollution and ensuring adequate water supply are fundamentally watershed-level issues, and the public policy should reflect that reality.

SIDE Boston Nature Center

Boston Nature Center

After a 40-year absence, the Massachusetts Audubon Society returned to the City of Boston with the opening of a 67-acre nature preserve at the old site of the Boston State Hospital in Mattapan.

The Boston Nature Center provides nature trails, boardwalks, an educational center, orchards, and community gardens to serve the inner-city neighborhoods located nearby. The nature center will focus its efforts on the 48 schools within a two-mile radius of the site. Some 250,000 people live within three miles of the center in the communities of Mattapan, Dorchester, Roxbury, Hyde Park, Jamaica Plain, and Roslindale.

Right in the heart of the city, in an area with above-average poverty levels and health problems, the Boston Nature Center will provide a haven from the congestion and noise of the city. The centerpiece of the preserve is a 20-acre wetlands ringed by cottonwood trees that were planted in the 1800's when the area was a working farm. Nature lovers have identified more than 300 species of plants on the site, and the wetlands are a major gathering place for herons, hawks, and other birds.

A 7,500-square-foot building will provide facilities for classes, films, bathrooms and other amenities, and research space. The boardwalk, which will be handicapped-accessible, will lead through the wetlands from the building.

The nature center is part of a much more ambitious redevelopment project for the 175-acre campus for the old state hospital, which was closed in 1968. Other elements of the redevelopment plan include mixed-income housing, businesses expected to employ as many as 2,000 people, and a commercial greenhouse.

The development of the nature center was coordinated by the Audubon Society, which purchased its land for a token \$10 an acre from the Commonwealth of Massachusetts. Preparation of the site required demolition of 29 buildings and remediation of asbestos and other environmental hazards on the site. But because the land served as farmland before the construction of the state hospital – and because the hospital was designed to provide a natural setting for mental-health patients to heal – the site was mostly clean when Audubon took it over. The whole process has been guided by the Boston State Hospital Citizens Advisory Committee over a two-decade period.

The development of the nature center has energized local community groups, businesses, and consultants to develop visions for connecting other green spaces in the area, such as Franklin Park, the Arnold Arboretum, and Forest Hills Cemetery. A research team consisting of Boston Consulting Group and Yale University researchers has proposed developing “eco-industrial” businesses in the area to provide job opportunities, reduce waste, and provide a model for inner-city development elsewhere.

Charles River

The Charles River runs westerly on the northern edge of the City from the Boston Harbor along Charlestown, the West End, Beacon Hill, Fenway/Kenmore, and Allston-Brighton. After looping around the City of Newton, the Charles picks up in West Roxbury and joins the new Millennium Park at the old Gardner Street dump site.

The Charles River is a regional showpiece and vital piece of Boston's recreational system. The Charles River Esplanade contains playing fields, a swimming pool, a concert shell, jogging and bicycle trails, a community boating house, and places for sunbathing and picnicking and other more passive forms of recreation. The esplanade provides critical connections along the northern edge of the City but is fragmented along the way and feels unsafe and unsightly along Storrow Drive and Soldier's Field Road. Access to the riverfront is also irregular.

The Metropolitan District Commission, which owns and maintains the river reservation, has completed a draft of a new master plan. The plan aims to enhance the pedestrian and bicycle access within the reservation and with nearby neighborhoods, "calm" traffic along the arteries that line the river, balance uses along the river, provide better spaces for family activities, create stronger connections to the water's edge, improve vegetation and wildlife elements along the river, and distribute large events more evenly along the waterfront. Although the plan focuses primarily on public access and uses, environmental issues are also critical to the overall integrity of the area. The water is expected to be fishable and swimmable by 2005, offering not only more uses but also dramatically improving the image of the area.

LOWER BASIN

Described by Charles Eliot as the city's "court of honor," the Lower Basin of the Charles River is a place of civic identity and beauty. Stretching about 2.5 miles in length and up to 2,500 feet in width, the Lower Basin has the look and feel of an urban lake defined on the Cambridge side by vertical seawalls and on the Boston side by soft curvilinear banks. The gold dome of the Massachusetts State House and the Longfellow Bridge offer a beautiful backdrop for the Basin. Prepared by Goody, Clancy & Associates, the Metropolitan District Commission has created a Charles River Basin Master plan for the Reservation. The following descriptions will discuss the important areas of the Reservation and summarize the intentions of the MDC.

1. **Charles River Dam.** Built in 1910, the Charles River Dam created a stable river basin where a tidal river had previously existed. The construction of the Museum of Science in 1951 eliminated the original park atop the dam, creating a major obstacle to access from one riverbank to another. A parking garage, hangs over the original edge of the dam, covering the hand operated lock which once served small vessels and crowds the historic boat house and stables. Metropolitan District Commission plans call for reconnecting the north and south banks of the Reservation with a new pathway, restoring and reusing the Lock House, Stables and Pavilion, softening the appearance of the parking garage, establishing a multi-use bike path along the upriver face of the Science Museum, and restoring the historic boathouse for an appropriate marine use.
2. **The East Cambridge Front.** Constructed in the 1900's, the East Cambridge Seawall is approximately 2,200 feet long and 80 feet wide and allows stunning views of the Lower Basin, the Longfellow Bridge, and the Boston Skyline. Two parks along this stretch of the

reservation, both of which lack activity. Front Park is almost entirely cut off from the River by trees, and Lechmere Park is almost completely deserted except for the occasional fisherman. The MDC hopes to connect this isolated segment to the rest of the reservation by screening adjacent development with parkway trees, broadening the usable area of the strip, and animating the Front with increased activity. The MDC also has recommended replacement of the trees along the Front at the edge of the Parkway, opening the parkland for passive uses as well.

3. **Broad Canal.** One of the last vestiges of the river's industrial past, the granite-lined Broad Canal off the Lower Basin is isolated and rarely used. The mouth of the Canal is on one of the most unused and inaccessible stretches of the Reservation, the Longfellow Bridge Viaduct. Pedestrians can only get to the Canal by crossing over four lanes of high-speed traffic, while only the smallest of boats can get to the Canal below two permanently lowered drawbridges. MDC plans call for reconnecting the canal with the Lower Basin through new pathways and the replacement of bridges, improving boating access, and preserving and interpreting the industrial artifacts of the canal.
4. **Leiderman Field (Charlesbank).** Dominated by active uses, including two softball fields, two tennis courts, a spray pool and playground, and the Lee Pool, this area is increasingly used for large events. The open space along this area lacks benches or any sense of enclosure and is not conducive to passive activities. The athletic fields have no bleachers, score boards, or lighting. MDC is currently trying to reinforce this landscape for passive as well as active uses, remove or at least reconfigure the parking areas to minimize conflicts between pedestrians and cars, and design and program the Charlesbank as a flexible multiuse area.
5. **Longfellow Bridge.** Built in 1906, the Longfellow Bridge (also known as the "Salt and Pepper") is the oldest and most architecturally distinguished bridge on the river. Despite its beauty and social value, Longfellow Bridge is one of the weakest links in the Reservation. On the north side of the bridge the viaduct has cut off and isolated a piece of the old MIT Front and the access stairs to the bridge, leaving no safe or obvious connection between the river path and the Bridge walkway. Connections on the south side of the bridge are not much better, leaving cyclists and skaters scrambling up or down several flights of stairs and crossing traffic to reach the pedestrian bridge to the reservation. The MDC is considering proposals to improve lighting, restore the bridge itself (steel and stone structures, rails steps and towers), re-stripe bicycle lanes, construct a 120-foot aerial bridge, and improve pathways.
6. **The Esplanade.** Since its creation in the 1890's, the Esplanade has undergone two major transformations in form and character. In 1931, the Esplanade was expanded to prevent "topple" waves, which interfered with boating. In designing this expansion of the Esplanade, Arthur Shurcliff (his predecessor was Charles Eliot), laid out strait paths and a series of formal overlooks and boat landings along the shore, while at the same time softening the appearance with a massing of trees. With the construction of Storrow Drive 1949, much of the Esplanade was threatened to be obliterated. Arthur Shurcliff was commissioned again to reshape the Esplanade from the BU Bridge to the Charles River Dam. This area is by far the most popular park space in the MDC system.
 - **Hatch Shell** – Increasing use of the Hatch Shell and the surrounding areas, has led to high levels of soil compaction, bare patches of earth, and destroyed vegetation. The

MDC has called for the number of concerts at this center, as well as minimize the interference of the concerts.

- **Lagoons and Boat Haven** – Storrow Lagoon, originally designed for ice skating in the winter months and model boating in the summer was the first of a group of lagoons that were added to the Esplanade. The newly added lagoons were intended for the use of canoes. The MDC has called to limiting the use of the lagoons to muscle powered boats only.

- **Governors Landing** - One of the grandest formal gestures in the Basin, Governors Landing provides a frame to the Boat Basin. Because of being undercut, possibly by winter ice, the steps of the Landing have collapsed, making it one of the most visible signs of disrepair in the entire Basin. Stabilizing and restoring the steps and rails at Governor's Landing is one of MDC's highest priorities.

7. **MIT.** The Massachusetts Institute of Technology has defined the Cambridge side of the Charles River since its move in 1916. Memorial Drive matches the institutional character of the campus. The trees on either side of Memorial Drive are in poor condition, and the major soil compaction from the off-path runners is killing the trees. Pedestrian safety is the MDC's greatest concern.
8. **Charlesgate and the Fens.** Charlesgate is the missing link between the two most important open space systems in the Boston area: the Charles River Reservation and the Emerald Necklace. A primary goal for the MDC and open space advocates is the reestablishment of a strong pedestrian link between the Basin and the Emerald Necklace. In addition, the MDC plans to transform the Charlesgate Overpass Park into a healthy and attractive park area for a variety of users. (See Sidebar on page --)

UPPER BASIN

Approximately 6,000 miles in length and varying from 300 feet to 1000 feet in width, the Upper Basin follows the curvilinear course of the old river channel and has retained a strong river character.

9. **The Boston University Bridge.** Built in 1928, the BU Bridge marks the transition from the middle and upper basin where the river follows its original course to the lake-like expansion of the lower basin. Pedestrian access from one river shore to the next is poor, and the MDC master plan calls for improving the continuity and safety of movement along and across the River.
10. **Magazine Beach.** Originally, the site of a military powder magazine, Magazine Beach was established in 1899 after the filling of the marshes provided an opportunity for a park and bathing beach. As the water in the basin worsened during the 1950s, swimmers were forced to retreat to a newly built pool nearby. Since the 1950s, the changes in uses at this beach have resulted in a disjointed and worn out condition at Magazine Beach. The facilities at Magazine Beach bear little relation to the river or to the rest of the park and are in poor condition. Public services are available only during the swimming season. The intensity of use has created bare spots on the fields. In its Master Plan, the MDC calls for diversifying and strengthening the landscape, improving pathway continuity and shoreline access, managing the use of open space to sustain the landscape use of the park, and improving the overall maintenance of the park and facilities.
11. **Allston Landing / Turnpike.** In the 1970's, the narrowing of the Storrow Drive allowed for the white bicycle path and the addition of landscaping on both sides of the parkway. Despite the effort to make this stretch more pedestrian-friendly, the noise and fumes of the

Massachusetts Turnpike, rail yards, and parkway combine to make this segment very unpleasant. In its Master Plan the MDC has called for the creation of a better buffer between the traffic and the pedestrians, and reinforcement of the parkway character of Storrow Drive.

- 12. Genzyme Front.** The six-foot walkway and steep bank of this parkland is the result of the widening of both Soldiers Field Road and the accompanying side roads. This walkway is the site of frequent accidents between pedestrians, cyclists, and skaters and often results in users being pushed off the path. The MDC hopes to protect pedestrians from the threat of noise and traffic, permitting access to the shorelines where possible, opening views upriver, adding a pedestrian phase to the existing traffic signal at Cambridge Street and Soldiers Field Road, and reconfiguring the pathway.
- 13. Harvard Business School / Harvard College Houses.** The Harvard Business School, which occupies the onetime marsh, lands that separated Cambridge and Boston. Open grassy banks, low brick buildings, and views of Weeks Foot Bridge and Weld boathouse define this area. Most of the open fields are bare of vegetation and scoured by road sand. The lack of a parkway curbs has caused many cars to skid off the road into trees or streetlights. Preserving the open grass character of the banks and the views of the surrounding campus buildings, reinforcing the landscape character of the parkway, improving Soldiers Field Road, and substituting the lighting of Weeks Bridge are all objectives of MDC.
- 14. Soldiers Field.** Soldiers Field, once the marshlands over which the Longfellow Mansion looked, was donated to Harvard in the 1870's and filled by the turn of the Century. The open athletic fields and wooden banks of this segment signal a pleasant transformation from an urban to a more rural character, but the parking lots detract from this attractive and historic landmark. The MDC hopes to reinforce the open space, which once characterized this area, by removing intrusive elements such as the guardrails, and reconfiguring the parking lots.
- 15. Longfellow Park and London Plain Trees.** This section of the Basin begins to open with the Longfellow Park next to Mount Auburn Street on one side and the Harvard Athletic Fields across the River on the other side. The towering embrace of the London Plain Trees, the sweeping curve of the embankment, and the broad expanse of green lawn down to the water's edge are defining features of this segment. A playground conveniently located near a residential area and parking, is one of only a few in the middle basin. The MDC has called for preserving the open character of the banks and the landscape character of the parkway, creating a comfortable and safe pathway along the river and across the parkway, creating seating by the water, and providing more play structures which fit the park setting.
- 16. Herter Park.** Herter Park, largest open parkland in the Basin, is a popular place for picnickers, skaters, cyclists, playing volleyball, fishing and canoeing, and any other activities one can think of. An island with an outdoor theatre and a building bridging from shore to island were created in the 1960's. Because of the lack of public transportation and the lack of visibility, these facilities are not as well utilized as they could be. The finish line to the Head of the Charles and the Run of the Charles canoe and kayak races, Herter Park is home to many other special events as well. Poor design leaves some areas of the park overcrowded and others underutilized. The main pathway through the park, which is part of the Paul Dudley White Bike Path, passes through a stretch of boardwalk which is one of the most popular areas of Herter Park. Joggers are forced to abandon the crowded pathway for dirt paths along the shore. The MDC hopes to maintain the rich mix of activities, resist inflexible

special use facilities such as fenced athletic fields or skateboard rinks, and to create a better sense of order in the landscape.

17. **Hell's Half Acre.** The only substantial wetland area in the Basin, Hell's Half Acre got its name from the author Bernard DeVoto, who called for preservation of this unique urban wild. Because of the high number of park users, multiple paths wind through the wetland and the wooded area. A former boathouse blocks critical views to the Charles and to the Eliot Bridge. MDC's main objective is to full restore Hell's Half Acre as a healthy native wetland and laboratory for environmental education.
18. **Greenough Boulevard.** This one-mile stretch of parkway has the potential for great changes. The parkway's curving alignment creates a wonderful variety of views and the wetlands at either end of this segment provides a home to a large number of bird and animal species. The MDC has called for widening the parkland and improving the pathway, strengthening the pathway, and creating an appealing loop to draw cyclists, joggers, pedestrians, and inline skaters from Herter Park.
19. **GSA Site – Arsenal Street.** The GSA site, given to the Department of War in 1920, is currently highly contaminated with radioactive waste. The Army Corps is in the middle of a cleanup process that should be completed in the next couple of years. When the Army Corps are finished with this process, close to nine acres will be accessible, with a pleasant small stream running down the western edge of the property. MDC plans call for reincorporating the land back into the reservation, and creating structured opportunities for athletic uses.
20. **Soldiers Field Road Extension.** Rather than following the river shore, this 8-foot wide pedestrian and bicycle path runs too close to the parkway. Unlike the tree lined pleasure drives of the classic landscape of Basin parkways, such characteristics are completely absent from this stretch of Soldiers Field Road. MDC plans call for improving the appearance and strengthening the parkway character of this road, reestablishing connections to the Charles, and widening the parkway to realize the original vision of the Reservation.
21. **Little Greenough.** A tree lined pleasure drive with views of the river; it is one of the nicest parkways in the Basin and has been carefully protected. The only drawback to this area is the continuous fence along the Arsenal site that detracts from the illusion of being in a natural setting, and cuts the Arsenal Park from the River. Goals of MDC are preserving and enhancing this exemplar parkway and better integrating it with its river setting.

SIDE charlesgate park

Charlesgate Park

One of the most awkward spaces in all of Boston is the Charlesgate park area near Commonwealth Avenue near Kenmore Square. The park, which includes the section of the Muddy River that feeds into the Charles River, extends from the Massachusetts Turnpike on the south to Storrow Drive on the north.

Because of the Bowker Overpass, which connects the Back Bay Fens to Storrow Drive, the park lies in the darkness on even the sunniest days. Nearby Kenmore Square offers one of the busiest activity centers in Boston. The Commonwealth Avenue Mall, a vital part of the Emerald Necklace, runs by the park. But few people venture into the Charlesgate park. Outdated design and landscaping do not invite passersby or neighbors to use the area.

The Charlesgate park was the subject of a design charrette – a special brainstorming session designed to provide creative planning options – in the fall of 1998. The charrette brought together more than 50 residents, landscape architects, planners, state and city officials. The charrette was coordinated by the Community Outreach Group of Radcliffe College. Boston 400 participated in the event.

The charrette produced a number of design ideas, which were displayed for public viewing as the Boston Public Library in 1999. Among the ideas:

- Replace the Bowker Overpass with a sleeker structure that allows more light into the area. Since the Bowker is structurally deficient, state officials say that it will need to be rebuilt early in the next century.
- Highlight the Muddy River as a centerpiece of the park. The river offers a number of pleasant spaces for sitting and contemplation. Landscaping is poor, the river bed has been allowed to deteriorate, garbage is strewn about, and few benches are provided for visitors.
- Block the noise from the southern section of the park by constructing a transparent wall. The wall could be designed as a climbing structure for children and adults, which provides views of the Mass Pike as well as the historic Fenway Studios on Ipswich Street. By establishing the Pike Wall as an attraction, the park would draw visitors.
- Provide “info kiosks” and “learning stations” at the median between the opposite lanes of traffic on Commonwealth Avenue. The support beams for the Bowker Overpass could be redesigned to provide bulletin boards for community and cultural events. The section that overlook the Muddy River could provide interactive learning stations that provide information about water quality, runoff and sewage, aquatic life, and cleanup efforts.
- Construct a pedestrian bridge over Storrow Drive to provide direct access to the Charles River Esplanade. Such a structure would create a reason for venturing toward the river that the park now lacks. The area near the river is one of the more beautiful spaces in the park.
- Tear down the stone walls that fragment the parks on both sides of Commonwealth Avenue. The walls, intended to restrict noise, instead block light and restrict access to some of the most exciting sections of the park.

Charles-to-Charles

From earliest days as a peninsular settlement, Boston has been surrounded by the Charles River. Flowing by West Roxbury on the southwest, it encircles Newton and Brookline and reappears as the northern boundary of Boston throughout the Charles River Basin.
Excerpted from “Charles-to Charles”

January 1972

More than 25 years ago, the Brookline and Boston Conservation Commissions worked together to publish *Charles-to-Charles: A Conservation and Recreation Corridor for Boston, Brookline, and Newton*, a document that expressed a vision of building a greenway to connect the places where the Charles River borders both the north and south sides of the city.

The corridor that the group envisioned would connect a number of existing parks and natural spaces in both Boston and Brookline in a seamless system. Part of the corridor already exists in the portion of the Emerald Necklace from the Esplanade at Charlesgate, through the Back Bay Fens, along the Muddy River and the Riverway, to Jamaica Pond. From Jamaica Pond, the corridor diverges, connecting to Lars Anderson Park to the west and the Arnold Arboretum to the east. The two paths again converge at the confluence of the West Roxbury Parkway and the V.F.W. Parkway, and the corridor continues south along the V.F.W. Parkway and the cemeteries and parks to its west. The corridor ends at Cow Island Pond just south of the newly constructed Gardner Street park.

1. **Charles River Esplanade.** The Charles River Esplanade is one of Boston’s most used recreational resources. The MDC has recently completed a master plan for the Charles River Basin that calls for improved bicycle and pedestrian paths, shoreline improvements, and the installation of various amenities.

2. **Charlesgate/Bowker Overpass.** The space between the Back Bay Fens and the Esplanade has been obscured by the overpass that connects Storrow Drive with local roads in the Fenway. A community-based planning effort is now underway to improve the park space itself and provide a seamless connection between the paths in the Fens and along the Esplanade.

3. **Back Bay Fens.** The “front door” of both the east and west sides of the Fenway residential neighborhood, the Back Bay Fens is a park with extensive active and passive uses. The Muddy River that runs through the park will soon be dredged to improve the rivers flow, reduce the risk of flooding, and improve the river’s water quality.

4. **Riverway.** The Riverway’s paths follow both sides of the Muddy River.

5. **Olmsted Park.** Olmsted Park is host to a number of active recreational activities including baseball games and outdoor concerts. Leverett Pond’s new boardwalk makes it a destination for walkers and joggers.

6. **Jamaica Pond.** The end of the existing portion of the Charles-to-Charles corridor, Jamaica Pond is currently being renovated in keeping with the Emerald Necklace Master Plan. The Boston Parks and Recreation Department is stabilizing the edges of the pond, reconstructing the paths, and re-landscaping at the ponds edges.

7. **Arborway.** Connecting Jamaica Pond with the Arnold Arboretum, the Arborway is an important link in the Emerald Necklace, but its design is automobile-oriented making it feel dangerous to pedestrians and bicyclists. Community-based groups, including the Arborway Coalition and a group working on the Emerald Necklace Greenway are currently working to improve the design and safety of this segment.

8. **Arnold Arboretum.** Operated by Harvard University, the Arnold Arboretum offers a manicured landscape with paths running through out, and a spectacular view of the surrounding area from the top of Peter's Hill.

9. **Hellenic Hill.** Nearly developed into condominiums two years ago, Hellenic Hill was saved by legislative intervention. The backdrop to Jamaica Pond, it is a potential link in the Charles-to-Charles corridor. The hill is currently owned by Hellenic College.

10. **Larz Anderson Park.** Larz Anderson Park is a 64 acre park with a commanding view of the City of Boston, an enclosed children's play area, picnic areas, ball fields, and a public skating rink.

11. **V.F.W. Parkway.** Part of the MDC's extensive parkway system, the V.F.W. Parkway is a beautiful, tree-lined boulevard.

12. **Cemeteries.** Several cemeteries border the Towns of Brookline and Newton.

13. **Gardner Street park.** Built on a former landfill, the Gardner Street park now offers over 90 acres of open space including several playing fields.

14. **Cow Island Pond.** Cow Island Pond is a segment of the Charles River. The original Charles-to-Charles report calls it "the only remaining natural landscape in the heart of metropolitan Boston."

Columbia Road

Columbia Road has become known as the unfinished leg of Frederick Law Olmsted's Emerald Necklace. Running from Franklin Park to Boston Harbor, the boulevard offers an opportunity to connect the heart of the City to the water's edge. Many stretches of Columbia Road offer classic urban treasures: beautiful brick apartment buildings, attractive schools, active parks, an historic cemetery, and a vibrant business district. Other stretches exemplify the planning term "missing teeth" – intermittent vacant lots, faceless buildings, highway overpasses, and vast parking areas.

Columbia Road offers the opportunity to connect the city's people to its great natural, commercial, residential, and cultural resources. Options for improving Columbia Road range from simple transit improvements to a complete redesign of the two-mile corridor. Something in-between these two visions – filling in the development gaps, improving facades, reducing traffic – is a more likely scenario.

1. **Gateways.** Columbia Road begins at the intersection of Blue Hill Avenue and the beginning of Franklin Park. The entrances to Franklin Park and Zoo New England are invisible from the road, obscured by the multiple lanes of heavy traffic. The largest piece of Olmsted's Emerald Necklace, Franklin Park deserves a grand gateway, reflecting its historical and social significance in the city. Creation of a gateway at its other end – the JFK/UMass T station that provides access to the University of Massachusetts and the John F. Kennedy Library – would contribute to a better definition of the whole corridor.

2. **Road Design.** The start of Columbia Road at Blue Hill Avenue is a busy intersection with three lanes of traffic in each direction. Columbia Road is wide enough to accommodate a trolley, a bike path, or even a grassy median with large trees like the Commonwealth Avenue Mall. Narrowing the lanes would also slow traffic down and ease pedestrian use. Substituting bike lanes for turn lanes might also increase recreational use of the road.

3. **Public Transit.** The only public transit around Columbia Road is the No. 16 bus, but long-time residents remember when a streetcar that ran down the middle of the street, separated from the automotive traffic by a grassy median with large trees.

4. **Washington St. Intersection.** At the intersection with Washington Street, a fast food franchise occupies a full block with its drive-through window and huge parking lot. Even though the intersection of two main streets would be expected to generate heavy traffic, the parking lot is often empty. The development of alternative uses would allow the restaurant to flourish while improving the street "walls."

5. **Ceylon Playground.** One of only a few playgrounds in the area, the Ceylon Playground offers a beautiful pedestrian entrance for the adjacent Quincy E. Dickerman School. The slope of the park creates an attractive open space, one of only two between Franklin Park and the harbor. With no other playgrounds within almost a mile of Ceylon, there is an glaring need for more playground space in Dorchester and particularly around Columbia Road.

6. **Commuter Rail Overpass.** The Fairmount Line of the commuter rail crosses Columbia Road just before Quincy Street en route from South Station to Readville, stopping in Dorchester at Upham's Corner, Morton Street, and Fairmount. Running infrequently, it provides infrequent service to a densely populated area, which needs a more regular and reliable public transit service.

7. **Architecture.** Along the stretch of road between Quincy Street and Upham's Corner, the large Victorian houses recall the day when the neighborhood was one of the most fashionable addresses in Boston.

8. **M&M Ribs.** The vacant lot on the corner of Columbia Road and Quincy Street is an example of individual entrepreneurship answering a community need. The BBQ ribs grill truck is a favorite eatery and gathering spot on a street with few restaurants, and has been the basis for the rejection of development plans for the lot.

9. **Upham's Corner.** At the intersection of Dudley Street and Columbia Road lies Upham's Corner. This thriving commercial district boasts many historic buildings, a popular open-air market and one of the city's first Main Streets programs. Lack of good public transportation generates persistent traffic congestion. Although the commuter rail stops a few blocks away, it does not travel frequently enough to properly serve the area. A new transit stop, now under consideration for the Urban Ring, might reduce the congestion.

10. **The Strand Theater.** A beautiful historic building, the Strand Theatre is a local landmark and an anchor for the community, hosting public speakers, musical performances, and religious and school events. It also provides a place to gather for community meetings and events, such as the Upham's Corner Main Streets program kickoff and the holiday tree lighting.

11. **Dorchester North Burial Ground.** A significant historical site, the Dorchester North Burial Ground is tucked away at the corner of Stoughton Street and Columbia Road at Upham's Corner. There is little signage announcing the cemetery, directing people to parking or even to the front gate. The tall wrought-iron fence that encloses the cemetery is always locked, preventing any recreational or educational use of the cemetery.

12. **Edward Everett Square.** Named for the nineteenth century statesman Edward Everett, the square dates to the colonial era. Formerly known as Five Corners, the history of the square is displayed by the Blake House, built in 1677. The Square today is more like a traffic circle than a city square. It is home to a few drive-through eating franchises and has little pedestrian traffic -- discouraged by high speed traffic and poor street crossings. Residents hope to redesign the area to express its historic significance. The Everett Square Project Committee received a grant to do a study of the square and implement part of its plan. One idea is the creation of a Dorchester Historic Trail.

13. **Southeast Expressway Overpass.** Pedestrian safety also poses a challenge at the Southeast Expressway overpass, where the lack of traffic signals at the on and off ramps of the expressway pose a serious threat to pedestrians trying to walk to Columbia Point.

14. The JFK/UMass Red Line “T” Station.

15. The Kosciuszko Traffic Circle. Columbia Road meets up with Morrissey Boulevard, Mt. Vernon Street and William J. Day Boulevard at a traffic circle just past the Red Line “T” Station. Even though it is the only pedestrian access to Columbia Point, the circle has no safe pedestrian path.

16. The Bayside Expo Center. An abundance of parking lots defines the Bayside Exposition Center at the entrance to Columbia Point.

17. Columbus Park.

18. Carson Beach. With new sand and a renovated bath house, Carson Beach is a delightful public space, taking full advantage of the newly-clean Boston Harbor.

19. The Harborwalk. Along the water’s edge from Carson Beach around all of Columbia Point is the most recent piece of the Harborwalk – a project providing public access along the entire Boston Harbor. The paved path is excellent for bicycles, in-line skates, or just walking.

20. Harbor Point Housing Development. Recently rebuilt, Harbor Point now has mixed-income housing with plenty of open space and a wonderful view of the harbor.

21. John F. Kennedy Library and Museum. Designed by I.M. Pei and Partners, the striking black and white museum and library was dedicated in 1979 to support the study of Kennedy’s life and career as well as encourage greater appreciation for America’s political heritage.

22. University of Massachusetts campus/building/hideous monstrosity. Established in 1964, the University of Massachusetts at Boston is known as one of the leaders in urban universities. As part of its mission, the University provides a number of services to Boston residents of all ages, including computer services, work with the local high schools, and offering many classes for community members.

23. The Massachusetts Archives and Commonwealth Museum. Holding records of state entities that document or dictate the purpose of those entities, the state archives are routinely used by state agencies in their normal functioning, private citizens to document their rights and researchers. The museum has permanent and temporary exhibitions on the physical and social history of Massachusetts, as well as publications, databases and outreach programs.

24. Pump Station. A historic building with beautiful Victorian details, the former pump station is now being considered for purchase and redevelopment by the University of Massachusetts.

Massachusetts Community Preservation Act

Both chambers of the Massachusetts State Legislature approved bills in 1999 to create a new funding mechanism for projects that involve housing, open space acquisition, and preservation.

The Community Preservation Act would allow local governments to pass a local tax to pay for projects in any of the three areas. The law would allow local city councils or town meetings to adopt the levies and seek voter approval in a referendum. More than 50 stakeholder organizations have endorsed the measure. More than 70 communities in Massachusetts have endorsed such a tax but have experienced difficulty getting state approval.

The chambers differed in their strategies for funding. The Senate version offers two possible funding sources: an additional excise tax of up to 1 percent on the deed excise tax or a surcharge of up to 3 percent on the real property tax levy. The House version allows localities to levy only the real estate surcharge of up to 3 percent, but also provides matching funds worth 25 percent of the total revenues raised.

The CPA has been a priority of the housing, preservation, and open space communities for more than two years. The goal of the legislation is to give municipalities new options to develop “whole” communities. Each municipality would have the option to use the money for one, two, or all three of the programs.

The CPA represents a growing consensus on the need to develop strategies to combat sprawl in urban areas. By allowing communities to buy land, the act provides a mechanism to combat the development of farmland and other spaces that are critical to the environment and character of a community. The preservation provision provides mechanisms for communities to redevelop existing buildings and districts and lessen the pressure for outward expansion.

Sprawl has been a hot topic of discussion in Massachusetts for years. In 1998, the U.S. Environmental Protection Agency convened a major conference in Boston to share strategies for combating unchecked growth.

At that conference, experts reported between 1972 and 1996, when the state’s population increased only 6 percent, the amount of developed land increased by ten times that rate. According to the Southeastern Regional Planning and Economic Development District, the last 40 years have seen more land development than the previous 330 years since the settlement of Plymouth Rock.

CPA would not offer a comprehensive anti-sprawl strategy. Other strategies – involving zoning, tax codes, public transit, housing codes – are also essential variables in the anti-sprawl equation. But the CPA could give communities like Boston and its suburbs a good vehicle to talk about what overall strategies would be worthwhile pursuing to foster community development that integrates rather than separates people and activities.

Emerald Necklace improvements

(this sidebar is a set of annotated maps of the Emerald Necklace – with information about the specific places that need to be “fixed” in the next generation. It should be liberally illustrated. It probably should go four pages. It might be good to start with a map of the whole necklace, and then break out into maps and pictures of the smaller pieces NOTE: Some of these sections might seem too long, but they would be broken up with the graphic materials. You might consider them to be extended captions for the graphics.)

Boston’s Emerald Necklace is one of the world’s great citywide park systems. Designed by Frederick Law Olmsted, the Emerald Necklace incorporates six different parks and open spaces. To succeed, the Emerald Necklace must connect these spaces seamlessly.

Here is a look at the places that require improvements in the next generation:

Charlesgate and Bowker Overpass. Under Olmsted’s design, the Muddy River flowed uninterrupted into the Charles River. People should be able to walk along the Muddy River and the parkland along the river, eventually reaching the Charles River and Esplanade. Storrow Drive and the Massachusetts Turnpike pose two daunting obstacles to the walk to the Charles.

Under the current configuration, the Muddy River runs right into the Mass Pike at Ipswich Street. Access to the other side of the Pike comes by walking across the Bowker Overpass. Walking on the Overpass can feel dangerous because of high-speed automobile traffic and narrow sidewalks. On the north side of the Overpass, park space straddles Commonwealth Avenue and stretches to Storrow Drive. Those parks have suffered from darkness, poor pedestrian access, and a design that offers little for residents or passersby. The parks’ connection to the Esplanade is cut off by Storrow Drive.

The cleanup of the Muddy River is critical to the success of this area. Ipswich Street, a vital connection between Boylston Street and Lansdowne Street, could be dramatically improved with minimal landscaping and sidewalk improvements.

A redesign of the Bowker Overpass is critical to the success of the area. With the current overpass facing major structural flaws, a new overpass can be built that not only handles auto traffic but also provides better pedestrian and bicycle access and allows more light to get to the Charlesgate parks. The redesign of the Charlesgate underpass parks offers numerous possibilities. The major goals of such a redesign should be to shield noise from the Mass Pike, make park space lighter, enhance the river as a park attraction, and create well-defined activity areas.

Pedestrian connections to the Charles River Esplanade might be possible with a pedestrian bridge or stop signal. Pedestrian bridges often create as many problems as they solve, but a small bridge might be appropriate for this area.

The Back Bay Fens. The Back Bay Fens has benefited from important enhancements in recent years, such as the construction of new steps from Boylston Street, redesign of the Mother Rest, and addition of lighting near the Victory Gardens. Many improvements remain. The Evans Way, Forsythe Street, and Agassiz Street paths do not provide adequate access to the park. Agassiz Way – a major connector from the east and west parts of the Fenway – requires better lighting. Existing street and park lamps mar the area’s appearance because of a variety of styles.

The greatest problem is that the Back Bay Fens is cut off from its greatest asset, the Muddy River, because of the growth of invasive reeds called fragmites. In addition to blocking views of the river, buildup of sedimentation in the river also creates a constant danger of flooding with every major storm. Mayor Menino has secured \$43 million in funds from the state for a cleanup of the river. The Parks Department has also secured federal funding for a new bicycle path from the Back Bay Fens to Huntington Avenue along Westland Avenue.

The section of the Back Bay Fens near Boylston Street and Park Drive is underused because of intimidating traffic patterns. Strengthening of sidewalks and improved landscaping could bring this piece a vital part of the Emerald Necklace.

The former “missing piece.” The owners of the new Landmark Center have ceded ownership of the former Sears parking lot to the City. The area has become a lawn with paths for the area’s many walkers. Development of a more sophisticated design awaits a community process. Many Muddy River advocates call for the river to be “daylighted,” that is, restored as an open river from its current position underground in culverts. Traffic redesign is crucial to connecting the “missing piece” with Riverway.

The Riverway and Jamaicaway. Originally conceived as an old-fashioned parkway, suitable for leisurely excursions into the outdoors, this roadway has become a major automobile carrier connecting Jamaica Plain, Mission Hill, Longwood, and the Fenway. Car traffic is intimidating to pedestrians and bicyclists and cuts Bostonians off from one of their greatest treasures. The parks along the Muddy River also require restoration, with redesign of paths and placement of benches and other appropriate street furniture. More and better crosswalks are essential for the whole stretch of the Riverway and Jamaicaway.

Arborway. A critical connector between Jamaica Pond and the Arnold Arboretum, the Arborway consists of a major road and a “service” road – and traffic is fast on both. Because the service road is used as a major artery, pedestrians and bicyclists lack safe passage from one piece of the Emerald Necklace to another. If automobile traffic is controlled, the service roads could provide pleasant and safe connections for the area. The Metropolitan District Commission, which has jurisdiction over the road, is working with community groups on a comprehensive transportation plan to improve safety and access.

Franklin Park access. Access to the city’s largest park is marred by automobile traffic and inadequate design on the park’s edges. Signage at nearby Forest Hills and Green Street transit stations is inadequate. More important, sidewalks are patchy to the park on all sides. Circuit Drive, which runs through the middle of the park, is dominated by automobiles and in places offers no safe place to walk. The edges of the park are often intimidating for passersby and infrequent park users. The two entrances requiring a major design overhaul are at Blue Hill Avenue and Morton Circle. Other entrances need enhancement to draw neighbors.

Columbia Road. Often called the “unfinished” piece of the Emerald Necklace, Columbia Road once flourished as a trolley corridor with beautiful Victorians, three-deckers, and apartment buildings. But Columbia Road has lost its original character with the widening of the street for automobile traffic. To reclaim this corridor as a critical element of the Emerald Necklace, the city might develop a special trolley service along a new landscaped street. By connecting Carson Beach with Franklin Park and Forest Hills, an Aqua Line could spur major economic investments and make Franklin Park and the waterfront major attractions for residents and visitors alike.

Events and festivals

Each year, hundreds of festivals and other public events take place in Boston. Three of the city's parks – the Charles River Esplanade, Boston Common, and Franklin Park – bear a disproportionate share of these activities.

There are two major problems with the excessive use of these parks. First, there is a danger that these parks will be “loved to death” – that maintenance will be difficult because of the stampede of bodies and the lack of resources for restoring park spaces after events. Second, excessive use of parks places an undue burden on neighborhoods and regular users of the parks.

Parks Commissioner Justine Liff has called for the city or state to construct a fairgrounds to host major festivals and events in the city. The fairgrounds would not only take the burden off other parks and reduce maintenance costs, but would also serve as venues for attracting major events to the city.

Here are some of the major events at Boston's major parks:

Franklin Park: Boston Kite Festival (golf course), Puerto Rico Festival (playstead), Kiddie Carribean Festival (White Stadium), Carribean Festival, Roxbury Pride Day.

City Hall Plaza: Scooper Bowl, Festival Hispania, Cape Verdean Festival, Central American Festival, Greek Independence Day, Patriot's Day Flag Raising, Independence Day, Columbus Day.

Boston Common: MIX Festival, Project Bread Walk for Hunger, Gay Pride Day.

Charles River Esplanade:

Other parks also host major events. Roach Park hosts the Louisa Festival, Ramsey Park the Dominican Festival, Cassidy Park the Brian Connors Fun Run.

The Parks Department has declared a moratorium on festivals in parks because of the damage to grass and facilities in the parks. Each new festival goes through a strict screening process.

Boston Harbor Islands

With the passage of Congressional legislation in 1996, Boston became the site of a major national park that could serve to connect residents and visitors to an extraordinary collection of natural and historic sites and provide an impetus to water-based transit and economic development.

The Boston Harbor Islands, which total some 1,600 acres of land over an area of 50 square miles and 30 islands and peninsulas, will be the site of a national park that incorporates 16 islands.

Five “hub” islands – George’s, Spectacle, Paddock’s, Long, and Deer – could be developed as recreational and environmental parks. In the near term, George’s, Spectacle, and Paddock’s Islands will serve as the primary sites for recreation. These islands will include gateways with visitor centers, restaurants or food concessions, boat rentals, and venues for concerts, educational; presentations, and festivals.

Already more than 100 buildings and other structures are located on the islands. These structures tell a story about the development of not only Boston but also North America. Cottages, forts, military buildings, sea walls, lighthouses, and bunkers all tell the story of civilization from Indian times to the early twentieth century. Many of these buildings will be singled out for special rehabilitation and access for visitors.

Plans to display the culture of Native Americans are under development as well. Some 21 islands are listed with the National Register of Historic Places because of their rich archaeological collections from the centuries of Indian settlements on the islands.

In addition to programmed recreational opportunities, the islands will also offer enhanced access for hiking, camping, and other enjoyment of the natural environment.

Critical to the national park’s success will be a system of water transit. Visitors will be able to get to the islands from East Boston, Charlestown, the North End, South Boston, and Dorchester, as well as the nearby towns on the North and South Shores. Private boat operators will be contracted to provide service to the islands. Levels of service will depend on the demand demonstrated for the different activities on the hub and other islands.

At all islands of the national park, a comprehensive system of orientation – kiosks, exhibits, maps, interpretive media – will guide visitors to attractions. All island development will follow principles of sustainable and accessible design. Each island open to the public will be required to provide staffing and planning for resource protection, interpretation, maintenance, and administration.

Under the plans, 16 islands are not expected to undergo any substantial development as resources for visitors.

Harborwalk

<Please note that this sidebar is unfinished will be updated with information from the BRA's current Harborwalk inventory project.>

Over the past 20 years, piece by piece, the City, the State, and individual property owners have been working to build a continuous walkway along the water's edge. When complete, "Harborwalk" will extend 43 miles along Boston Harbor. Running in and out of wharves, along beaches, across bridges, and through existing parks, Harborwalk will take a variety of forms, but all segments will allow people to enjoy the experience of being at the harbor.

The idea of Harborwalk is simple: to provide a number of connected places along the edge of Boston Harbor where people can take in the sights, sounds, and activities of the busy urban harbor. Boston Inner Harbor is one of Boston's largest open spaces, and it should be easily accessible to people from all of the neighborhoods.

At this point, only approximately half of the future Harborwalk is accessible. Many public and private landowners have not yet complied with the Massachusetts Public Waterfront Act – a law that has been on the books since 1866 – that protects the public's right to access the areas around buildings or other structures built below the historic high-water mark.

Call outs to go on the map:

1. Logan Airport: 7 miles of waterfront around the airports periphery is inaccessible.
2. Neponset Greenway: The greenway begins in this area, a gentle transition from Harborwalk to the linear park along the river's edge.
3. T Equipment Corporation's and Schlager Auto Body's properties are inaccessible.
4. Port Norfolk: Estuary Condominiums' developer never constructed the public riverside walkway approved in an environmental permit through the Department of Environmental Quality Engineering (the precursor to today's Department of Environmental Protection).
5. Rainbow Park boat launch <located near the end of Victory Road on Port Norfolk>: Public boat launch
6. Southeast Epressway: This segment is inaccessible because of the highway's location and the location of several businesses along the shore.
7. Boston Gas' 12-million gallon gas tank, painted in rainbow stripes by Sister Corita Kent.
8. Columbia Point: U. Mass., the J.F.K. Library, and Harbor Point are connected by a seamless path with groups of benches, shelters, and historical markers along the way.
9. Carson Beach and recently restored Carson Beach Bathhouse
10. Three private yacht clubs
11. L-Street Bathhouse
12. Castle Island
13. Boston Marine Industrial Park: the industrial park houses several water-dependent businesses
14. South Boston Waterfront: Harborwalk will be built along all future developments in the South Boston Waterfront

15. Federal Courthouse: The design of the Federal Courthouse's waterfront park and Harborwalk segment set high standards for nearby developments.
16. Old Northern Avenue Bridge: Current plans call for the removal of the bridge and replacement of the pedestrian connection by a private development. Historic preservationists have been actively looking to save the bridge, but the City has denied the structure landmark status.
17. Rowes Wharf: Accessible and well designed, Rowes Wharf provides intimate walkways among docked boats, small public spaces, and outdoor cafes.
18. Harbor Towers: This residential development is inaccessible to the public
19. Aquarium: The Aquarium is encircled by a public walkway – it is narrow, but it is open to the public
20. A new boardwalk: A new wooden boardwalk connects the lively and inviting granite plaza at the end of Long Wharf with the soon-to-be redesigned Christopher Columbus Park.
21. North End residential developments: Several of the residential developments along the North End's wharves are inaccessible. However, ____ has recently constructed a park with viewing stations, landscaping, and benches.
22. Battery Wharf: <What's the deal here?>
23. Coast Guard: <What's the deal here?>
24. Puopolo Playground: Bocce courts and playing fields enliven this greenspace on the harbor's edge.
25. Charlestown Bridge: Soon to be lit in the evenings, this industrial gem provides a strong pedestrian connection between the North End and City Square.
26. Charles River Locks and Paul Revere Park: The locks are completely accessible – except when the operators open the gates to allow boats through. The adjacent, newly-completed Paul Revere Park has good access, a play ground, and will have a spectacular view of the forthcoming cable-stay bridge along Interstate 93's Charles River crossing.
27. Charlestown Navy Yard: The around the U.S.S. Constitution and other Freedom Trail attractions is all open and accessible – but still has the feel of an old military base. East of the tourist attractions, is a ferry terminal with service to Downtown Boston and a number of piers and wharves with residential and office development. The Harborwalk in this area is a well-maintained wooden boardwalk set in granite.
28. The former Dewey Beach
29. Constellation Wharf
30. Schrafft's building
31. Public boat launch at the Schrafft's
32. Boston Conservation Commission's land in East Boston along Chelsea Creek: Still fenced off?
33. Pier at Maverick Square: Former site of MBTA ferry terminal, now what?
34. Industrial activity between Maverick Square and Piers Park. Inaccessible.
35. Piers Park: After years of clashing, Massport and neighborhood residents collaborated to build the spectacular Piers Park. With it's fully accessible sail boat pier, brick walkways, and unmatched views of the Downtown skyline, Piers Park is one of the finest places along the entire length of Harborwalk. The park will soon be expanded to include an area of playing fields.
36. Massport land? Or is it a private Marina?

37. Little park and playground start the Harborwalk again at the end of Jeffries Point. From there, the path is continuous, if short, along Massport's office property out to the recently-constructed Hyatt Hotel.
38. Cashman Equipment: Inaccessible
39. Blue Line train yard and Rev-Lyn Contracting Co. also inaccessible
40. Belle Isle Salt Marsh: Here, a thirty-foot tall observation tower offers views of the entire inner harbor, the islands, and even the Blue Hills.

Heart of the City

A cluster of parks and cemeteries form a large swath of green in the heart of Boston. The anchors of the area are the Arnold Arboretum and Franklin Park, the last two pieces of the Emerald Necklace – the park system Frederick Law Olmsted designed for Boston. They are complimented by the beautifully landscaped Forest Hills Cemetery and a few smaller cemeteries and will be joined by a new nature center. Although they face a few challenges, such as inadequate transportation, parking and signage, they provide an invaluable resource for the city.

1. **Franklin Park:** Designed by Frederick Law Olmsted as part of his Emerald Necklace, Franklin Park's 527 acres now include a golf course, a zoo, places to picnic, and 4.5 miles of bike paths and running trails. The park hosts a number of events throughout the year, including the Puerto Rican Festival and national cross-country races. The Boston Parks Department is in the process refurbishing it as a part of the Emerald Necklace Master Plan.

Transportation is one of the main challenges to the park and surrounding community. Although car is currently the best way to access the park, there is little parking in and around the park; visitors' cars constantly crowd neighborhood streets. The zoo, which attracts more than 350,000 visitors every year, the golf course, and the Boston Public Schools' White Stadium are the three greatest attractions in the park and draw the most cars. The parking needs of these three places need to be addressed in any parking or transit plan for the area. Destroying park land to create parking lots has been the only way to create more parking inside the park, such as the two gravel lots in across from the golf course in between the entrance to the running course and the zoo. This cannot remain the solution for the parking problem. Building more parking in the residential neighborhoods that surround the park is not a suitable alternative either. The best solution is to reduce the number of cars that come to the park – without reducing the number of people who enjoy the park – by improving other forms of transportation. Franklin Park is near Forest Hills Station, but there is no good pedestrian route to it. There is also a bus that stops at the main entrance to the park, near the zoo. Public transportation is still limited to outside the park; there is no way to get around within the park without a car or a bike. Biking to the park is not as simple as it should be. The bike paths that run along the Emerald Necklace and the Southwest Corridor Park into the area are not well connected to Franklin Park.

Controlling auto traffic within the park is also a challenge. Circuit Drive, a large road that runs through the middle of the park, carries a lot of through traffic as well as park visitors. The road divides the park and disturbs the peaceful atmosphere that would otherwise exist; residents and park users want the road to be closed to traffic.

2. **The Arnold Arboretum.** Managed by Harvard University, the Arnold Arboretum is an educational garden, with 265 acres of trees, flowers and shrubbery. As part of its educational mission, the Arboretum sponsors educational programs for adults and school group throughout the year. The arboretum is open to the public for walking, jogging or biking. The main challenge to the arboretum is also transportation. Like Franklin Park, there is limited parking at the arboretum. The walk from Forest Hills station is not well-articulated and in

places, even dangerous. The small leaves embedded in the sidewalk, meant to lead the way, are not large enough or frequent enough to succeed as a guide. Better signs and maps of the area, marked with the locations of the parks and other places of interests, would greatly improve the area. Signage is also an issue for the entire city. The city must create better street signs and more maps enhance the city's accessibility.

3. **Forest Hills Cemetery.** Established in 1848, the Forest Hills cemetery is a private 275 acre cemetery run by the Forest Hills Educational Trust. The cemetery preceded Olmsted's Emerald Necklace and may have inspired its design. Although it is one of the most beautiful sites in the city, Forest Hills Cemetery is underutilized because of its location south of the traditional tourist map boundaries and because of poor pedestrian accessibility. The closest entrance from the Forest Hills Station is a little west of the main entrance, almost completely hidden at the end of a residential street. Lack of signage is again a problem. The main entrance is recessed from Morton Street on a small side street, a far walk from the Forest Hills Station. There are no sidewalks on Morton Street or on the smaller streets that run to the main entrance. There are no traffic signals or crosswalks to help pedestrians cross Morton Street. This discourages pedestrian or bicycle use of these parks, augmenting area traffic and parking problems. The same lack of sidewalks and traffic signals hinders use of the rest of the area parks as well.
4. **Boston Nature Center.** On the site of the former Boston State Hospital, the new Boston Nature Center and Wildlife Sanctuary of the Massachusetts Audubon Society will add to the green character of the area. The 66-acre park will be the site for the on-going educational programs that the Massachusetts Audubon Society has been running for more than 20 years. The community gardens, which have been there for 30 years, will remain and the center will create a number of trails to run through the wildlife sanctuary. The conservation of the land as park space is a victory for Boston. Park land in Boston has been decreasing every year for the last xx years. When the city needs land for schools or hospitals, it sometimes takes park land which is far less expensive than buying land at current Boston land prices. Franklin Park has struggled with this issue, it has already lost land to the Shattuck Hospital and shelter. Community access to the center is also a challenge. The Center is not near to any rail stations, nor is there good pedestrian access from Forest Hills. The lack of sidewalk on Morton Street, which also borders the Nature Center, will hinder pedestrian access to the center. *(I don't know where the main entrance will be or if there will be an entrance there at all)*
5. **Forest Hills T Station.** Transportation is one of the important issues of the Heart of the City, making the Forest Hills Station a focal point of development in the area. Forest Hills is already an important regional transit node because many people drive to it from further south to commute into the city by subway. Logic might say that attracting many additional people into the area would help local retail establishments, but most people go from car to subway without stopping or entering the community. The community is looking to find a way to capitalize on the area's potential as a commercial center, as well as improve the aesthetics of the area.

The primary way that outside commuters impact the neighborhood is through an increase in the demand for parking. The area around the station is dominated by parking lots,

exacerbated by the MBTA yard. But all of these lots are filled in the early morning by commuters, leaving no spaces with residents or potential users of the commercial area. There is no place to park and run into a store for a quick errand. The commercial area is also limited in the services it provides. There is very little diversity of products, specifically, there is no place to get produce, are no places serving the large youth community that comes through the area everyday from three area schools.

An crucial part of attracting more people to stop in Forest Hills is the appearance and accessibility of the area. Enhanced streetscape and signage are needed throughout the area. The creation of a commercial district would benefit the area by providing some resources for much-needed façade improvements, deterring crime, possibly with the aid of a new police sub-station, similar to Downtown Crossing. Pedestrian accessibility around the station is also a challenge. Washington Street, Hyde Park Avenue and the streets that connect them (e.g., New Washington Street) are wide enough to provide convenient automobile access to the are, but foster an intimidating atmosphere for pedestrians. Street crossing issues also need to be addressed at the Monsignor Casey Overpass, Morton Street rotary, New Washington Street and the connection between South Street and the T station.

In addition to better street signage, maps and directions to Franklin Park, the Arnold Arboretum, Forest Hills Cemetery and the new Nature Center are essential to recreating the connections between these places. The distance between the T station and any of these destinations is not physically great, but the psychological distance is daunting because there is nothing interesting along to the way to help pull you along. As described earlier in the section on Charm Bracelets, distances can feel shorter if there are interesting things along the way to break it up. Improving the commercial and recreational activities in the area will contribute to these idea.

6. **Neighborhood Economic Development.** An increase in visitors to the parks would also support more economic development in the area – and vice versa. Possible retail projects that might capture park visitors include a place to rent bicycles and helmets, an ice cream shop, stores that sell sandwiches or other picnic ingredients and restaurants. But catering to park visitors is only part of the solution. The needs of the community members are not being met by the current retail establishments. The area could use a bank, a video store, convenience stores, and grocery and produce outlets. The business districts along Washington and South Street are critical to the activity in the area. The major goals should be to develop a more diverse retail mix and create a more attractive environment for businesses and visitors alike. Façade improvements, perhaps with the help of city grants, would make the area more attractive to potential customers as well as new businesses. Building a thriving commercial center and city destination would also increase awareness and use of the parks.

Building a parking facility outside the park with strong pedestrian, bike and trolley connections to specific attractions within the park might relieve some of the parking pressures while generating some revenue for the community. Food vendors inside the Franklin Park also would be a nice amenity for park users. Concerts and theater productions like the other special events already taking place at Franklin Park would expand the uses of the park and bring more people to any stores or restaurants in the area.

7. **Urban Design.** The gateway into the Heart of the City should reflect the character of the area. The main entrance to Franklin Park from Columbia Road gives no indication that traffic (automotive or pedestrian) is going to move into one of the greatest urban parks. As well as being beautiful, these gateways need to clearly express the green character of the area. They should give a view into the park, inviting, but not transparent, and be easy for the community to take care of. The Arborway Yard of the Green Line also needs to be redesigned to be less of an eyesore.

Muddy River

The Muddy River, which feeds into the Charles River, poses one of the most urgent challenges of Boston's five rivers. Ever since the flood of 1996, institutions in the Fenway and environmentalists have argued for a thorough dredging and cleanup of the Muddy. More than three decades of silt have gathered in the river's bottom, and the culverting of many river stretches and the presence of the ubiquitous reeds in the Fenway impede the flushing and water flow of the river.

Like the Back Bay Fens, the Muddy River was fashioned by Frederick Law Olmsted as a solution to the water quality and flooding problems in Boston tidal flats. By dredging the channels of the existing Muddy River and creating retention basins to prevent flooding and a tidal gate at the mouth of river to prevent water stagnation, the new Riverway and Fens were created. Olmsted wanted a salt-water marsh with plants that could survive in salt and brackish water and with changing water levels. The damming of the Charles River in 1910 transformed the river, converting it from a salt to a fresh water system. The result was important changes in vegetation and drainage that produced damaging buildup and reduced water flow. The tidal flows had served to flush out the river of sediments and pollution. The low slope of the riverbeds and the high rate of sediment introduction into the river are also factors in the low water flow. The Muddy River is also polluted by salt, petroleum products, animal and other wastes from overtaxed combined sewer overflows, illegal sewage connections and run-off from roads and parks. The high sediment buildup has contributed to the flooding and exacerbating the problem with the high levels of pollutants in the flooding waters.

The Emerald Necklace Environmental Improvements Master Plan of the Boston Parks and Recreation Department proposes comprehensive solutions to the Muddy River's problems of pollution and flooding. Dredging the river is the principal improvement, but adoption of "Best Management Practices," such as increased catch basin maintenance, street sweeping, installation and maintenance of modified major drainage outflows with sediment weirs, sediment traps/particle separators and oil/water separators are also critical to preserving the improvements in the Muddy River.

Re-vegetation is also a key part in the restoration plans. Re-planting Olmsted's plants and wetlands will help to stabilize the riverbanks. The wetlands provide outlets for water during heavy rains, helping with flood control and storm damage prevention. The flat topography and plant life and soils associated with bordering wetlands contribute to the protection of water quality by removing or detaining sediments, nutrients and toxicants (*toxins?*). Underwater land in a marsh system helps to contain water during heavy flows, and contains organic sediments that detain or remove nutrients or toxicants from the water.

"Visions of the Muddy River developed in Boston 400 and other community-based planning efforts call for the river to offer a variety of active and passive recreation opportunities – and transform its neighborhoods into vital "blue" communities."

Mystic River and Chelsea Creek

The two most polluted waterways are the Mystic River and Chelsea Creek, acting as the northern borders of Boston, by Charlestown and East Boston, respectively. The industrial activities along these waterways has sustained extensive ground and groundwater contamination, as well as serious pollution of the rivers themselves. The existence of nearby land uses such as Logan Airport, car rental businesses, and industrial activities makes the cleanup and redevelopment challenges an ambitious and expensive proposition. Along the Chelsea River, 507 disposal sites, as well as storm water runoff, combined sewer overflows, shipping and industrial wastewater and cooling water, create a toxic corridor that puts the area decades from any kind of recreational, residential, or clean industry development. Still, a number of opportunities are available along these northernmost rivers. The Hess Corporation, MBTA, and Condor Street sites in East Boston offer the potential for large-scale natural regeneration.

The Mystic River was defined by the shipbuilding industry from the early 1800s until after World War II, when as many as 50,000 workers found employment in maritime industries. Since its closing in 1972, the Navy yard has been redeveloped for residential, commercial, tourist, and some industrial and maritime activities. The centerpiece of the Mystic River shipping activity is the Moran Terminal, New England's original major container port which still operates almost at full capacity. The Charlestown Port Area is restricted to maritime or water-related uses. The industries along the Mystic River are based largely on dry bulk cargoes (usually high volume, low value commodities). Major imports are scrap metals, gypsum and cement, and road salt. Port-related activities include shipping, warehousing, trucking, distribution, and manufacturing.

Neponset River

The Neponset River offers the opportunity of a “green and blue” renaissance in the next generation. As a result of an MDC master plan and active community efforts, the lower Neponset, which runs the mouth of the river to Mattapan Square, has experienced a revival in recent years. Redesign of the Ryan Playground and Kennedy Playground provide two access points for canoe launches, as well as the potential for exciting lookouts onto the river. Development of a hiking trail, improved lookouts over the river, and better design and materials for the landside spaces has the potential to give the whole area a “blue” identity. Public and nonprofit entities are aggressively seeking to acquire new properties to extend the span of open spaces; sites under consideration include the T. Equipment and Schlager building near Granite Avenue. Also underway is a study to determine the advisability of removing two dams, which would increase the water flow and foster a more sea-like environment. Other issues, ranging from brownfield cleanup to the redevelopment of the old Baker Chocolate Factory, pose longterm challenges with important implications for the revival of the whole area.

1. **Paul’s Bridge.** Connecting Milton and Readville, Paul’s Bridge carries the Neponset Valley Parkway across the Neponset River. First built in the early 1700s, Paul’s Bridge was rebuilt in 1759 and 1802. It was declared a historical landmark in 1972. An excellent picnicking spot, the bridge lies at the beginning of the Truman Parkway, which offers natural areas with a bike path, tennis and basketball courts, and the Martini Shell. Just east of the bridge are the Kennedy Brook and the Balster Brook.
2. **Camp Meigs.** Established in 1861, Camp Meigs was one of the first training camps in Massachusetts, training the Massachusetts Volunteer Militia to serve in the Civil War. This was the training ground for the 54th, the 55th infantry and the 5th cavalry – the African-American units that inspired the movie “Glory.”
3. **Mother Brook.** Built in 1639, the Mother Brook was a man-made canal connecting the Charles and the Neponset rivers. It enters the Neponset River about 1.75 miles from Paul’s Bridge.
4. **Tileston & Hollingsworth Dam.** About 2.5 miles after the entrance of the Mother Brook, the Neponset is interrupted by the Tileston & Hollingsworth Dam. The T&H is named for the eponymous paper mill founded in 1836 at that location. Several community groups are working with the Metropolitan District Commission to create portage for canoes around the dam.
5. **River Street.** Running along the Boston side of the Neponset River, River Street does not offer much visual or physical connection to the river. Because of the early mills and other businesses that relied on the water for power and waste disposal, the community historically has put the Neponset at its “back door.” Efforts to open up the river to the community build on a national trend toward better public use of waterfronts.
6. **Sewer Pipe Crossing.** A sewer pipe runs through the Neponset around Massasoit Street between the T&H dam and Mattapan Square. This pipe is generally hidden under the water,

but in dry weather, the water level falls below the pipe and it poses a serious impediment to recreational water uses.

7. **Mattapan Square.** The heart of the Mattapan Community, Mattapan Square is the center of business as well as a gateway into Boston from Milton via the Blue Hill Avenue Bridge. After the redevelopment of the river, the square could serve as a recreational crossroads that directs people to Mattapan's parks and playgrounds -- as well as Milton's Blue Hills Reservation.
8. **Columbia Tire Company.** The Boston Natural Areas Fund's purchase of the old Columbia Tire factory will extend the public recreation space along the river by the Kennedy Playground. Another vacant lot in Mattapan Square, at the old ABC Liquors site, also offers new opportunities for development of civic space.
9. **High Speed Rail.** Mattapan Square is the terminus of the historic Red Line "high-speed" rail line which runs from Ashmont to Mattapan Square. This trunk of the Red Line is served by a fleet of President's Conference Committee cars from the old Green Line -- the last PCC cars in regular service anywhere in the U.S. Originally built in 1945, the cars were rebuilt in 1983.
10. **Edgewater Park.** The idea behind Edgewater Park was to build a "town common" in Mattapan Square. Future plans call for landscaping on both sides of the river. The pedestrian bridge will join the picnic and gathering area and community gardens on the Boston side of the river with the grassy spaces and play area on the Milton side. A canoe launch is also planned for that area, which will include the parking lot of the former ABC liquor store.
11. **The Neponset River Trail.** Running 3 miles from Mattapan Square to Dorchester Bay, this new recreational trail will form links among the different parks and green spaces in the area, such as the Boston Harbor, Squantum Point, Wollaston Beach, the Blue Hills Reservation, Fowl Meadow, Mother Brook, Stony Brook Reservation, and the Charles River. The 10-foot-wide paved path is designed for walking, running or biking. Community groups have called for security measures to assure widest possible use.
12. **Ryan Playground.** Located about 2 miles after the T&H dam, Ryan Playground has play equipment, ball fields and a supervised wading pool. Nearby lies a walking path along the river and canoe launch. The river between Mattapan Square and Ryan Playground contains some whitewater.
13. **The Central Avenue Bridge.** The Star Market supermarket and parking lot occupies a large piece land adjacent to the river. This land has the potential for other recreational or development uses that enhance the riverway. A running circuit has been proposed for the area as well..
14. **Old Baker Chocolate Factory buildings.** The Pine Tree Brook enters the Neponset River just before the Lower Mills Dam. It carries drainage from the Blue Hills and the town of

Milton. On the Boston side of the river are the buildings of the former Baker Chocolate Company factory, which moved to Delaware in 1964. One-hundred buildings have been redeveloped as condominiums; 200 more condo units are in the planning stages. Office and museum space is contemplated for Baker's old administrative office.

15. **Lower Mills Dam.** A significant drop in water level occurs at the Lower Mills Dam, where fresh water turns to salt and boaters are advised to exit the river. The dam also poses a barrier for herring and other fish trying to spawn upstream. The MDC is considering building a fish ladder to enable the herring to go further upstream to spawn. A State consortium is conducting a \$100,000 study to consider whether to breach both the Lower Mills Dam and the T&H dam. To improve pedestrian access to the river, the old railroad bridge between the Butler Street T station and Lower Mills will be replaced with a 12-to-14-foot-wide walking bridge. The Lower Mills commercial center lies at the foot of Dorchester Avenue, a main thoroughfare in Dorchester. The old Bay State Paper building offers great opportunities for adaptive reuse. The recent move of State Street Bank to the Flatley Building offers a better integration of business and the river.
16. **Milton Attractions.** Just after the Lower Mills Dam is the Adam's Street Bridge. On the Milton side of the river are the Milton Village MBTA stop, Milton Yacht Club, and Milton Town Landing canoe access. The bridge marks the beginning of Neponset River Estuary and Neponset River Reservation.
17. **Neponset River Reservation.** Just after the Milton Town Landing canoe Access, a small wooded knoll called Ventura Park lies opposite the launch. Just past Ventura is the Neponset River Estuary, home of the city's largest wild salt marshes. The Neponset River Reservation, created in 1899 by the MDC to preserve the marshland between the Lower Mills and the Granite Avenue Bridge, begins near the canoe launch. Plans call for the marshes and rest of reservation, now inaccessible to the public, to be part of a system of urban parks along the river.
18. **Granite Avenue Bridge Area.** The area on the Boston side of the river at the Granite Avenue Bridge offers another good place to launch a canoe but now has no formal ramp. This is the site of a combined sewer overflow pipe, used during heavy rains when the sewer running to the water treatment plant becomes too full. Water (rainwater and household sewage) is diverted to the overflow pipe, which empties directly into the river causing pollution problems. Plans call for replacement of the CSO pipe with the modern system of separate pipes for rainwater and household sewage. On the Quincy side of the river there are the remnants of an old stone wharf where the granite used to be brought from the Quincy Quarries to be shipped all over New England.
19. **Pope John Paul II Park.** After the Granite Avenue Bridge and Route 95 bridge are the Hallet Street dump and the old Dorchester drive-in movie theater. Acquired by the MDC in 1985, these parcels will form the Pope John Paul II Park with 72 acres. The park will be broken into three areas. The Riverside, the centerpiece of the park, will contain most of the park's facilities such as playing fields and courts. The Bend will be the least developed with meadows, a lookout and walking trails, and possibly a golf learning center. The Port will

include a promenade, play spaces, and groves of trees. Main entrance to the park will be off Gallivan Boulevard near Neponset Circle. The park will offer a sheltered “drop-off and pick-up” area. The MBTA plans to provide bus service to the park.

20. **Dorchester Bay.** The Boston Gas tank, which lies 1.25 miles beyond the Red Line bridge, mark the end of the Neponset river and the beginning of the Dorchester Bay.
21. **Tenean Beach.** With improvements in the quality of water in the Boston Harbor, Tenean beach has become a popular swimming area. The beach also offers facilities for tennis and other games. Just north of Tenean Beach is Victory park, which now offers a boat launch
22. **Squantum Point Beach and Park.** An important stopover for migrating birds, Squantum Point Park will be 50 acres of a former U.S. Navy airfield. Primarily a wildlife sanctuary, the park will offer more active uses at its edges. One possibility is to establish ferry service to the Harbor Islands. Boat ramps, beach restoration, and fishing spots are also part of the plans.

Signage and Orientation. An important part of creating good civic spaces is signage. The MDC has developed a system of signs for street crossings, connections to other parks, directions to points of interest and general orientation along the Neponset River Reservation. In addition to signs, other devices can be used to orient people. For example, Mattapan Square residents plan to use a painted blue line to show the connection from Mattapan Square to the river.

Water quality. A number of public and community efforts have produced better water quality for users of the Neponset River. In addition to the Boston Harbor Clean-up and the restrictions on dumping and other polluting activities, the Massachusetts Executive Office of Environmental Affairs’ Neponset River Watershed Initiative has begun to eliminate connection between sewers and storm drains, redesign catch basins to collect oil and particles before entering the river and educate the public about the use and safe disposal of pesticides, fertilizers, car oil and household cleaners. Although the water quality has improved considerably, more progress needs to be made before the Neponset is completely safe for swimming and fishing.

Our Central Park

An excerpt from the Seaport Public Realm Plan, January 1999.

The Seaport can play an important role in expanding Boston's public realm. As a collection of large parks and linear open space corridors, Olmsted's Emerald Necklace provides rich open space resource for the city. The Walk-to-the-Sea first extended this system from the Common through City Hall Plaza and Quincy Market to Long Wharf. The Seaport can play a critical role in developing a harborfront link from the Olmsted system, as well as connecting the city to the Harbor Islands. It can also play a significant role in the Harbor's revival by tying into and extending the existing public realm of Boston – its public streets, parks, open space corridors and pedestrian and bikeways – along an activated waterfront edge.

Two scale comparisons are worth looking at to illustrate the potential of the Harbor as an open space resource. The Emerald Necklace, a major component of Boston's public space system, reshaped over 2,000 acres of Boston when it was first built. Its frontage length is only 17.5 miles.

By comparison Boston's Inner Harbor is approximately 1,290 acres, water only, not including any area on land), about three miles long and contains almost 20 miles of frontage, if one were to walk its entire length. This comparison suggests that the Harbor is potentially a major component of Boston's public space system. It is remarkable to note that in size, length, width, and acreage, Central Park – at 895 acres and as the front yard for Manhattan's neighborhoods – fits within the outline of the Harbor.

The importance of exercise

Parks and playing fields have always been a place where residents can meet and mingle or enjoy a little healthy competition. Today, health and exercise (and the correlation between the two) have come to the forefront of the national consciousness, due in part to the aging baby boom generation.

Throughout the nation health club memberships are on the rise and more people are taking to the outdoors for invigorating recreational activities. Running and bike paths have more traffic on them, and there is an increase in demand for playing fields for sports teams of all ages. Greater demand for playing fields and bike paths has left Boston with inadequate recreational space to serve its citizens. The city must take the initiative to provide more space for these activities that are an essential part to our physical and civic health.

SIDE public opinion on parks funding

Public opinion on parks funding

Public opinion surveys and voter referendums have shown broad support for increasing public funding for parks acquisition and improvements.

A 1999 survey of Massachusetts residents who are likely to vote found strong support for a 1 percent property tax increase to protect open space, historic sites, and environmental initiatives for clean air and water. Some 59 percent of all respondents said they would support such a tax levy. Support was even greater in Boston – 69 percent.

Ninety percent of respondents statewide said that the Commonwealth should give localities the option to raise funds for open space, preservation, and the environment.

The telephone poll was conducted from January 27 to February 1, 1999 for the Trust for Public Land. A random sample was screened to focus on those who were most likely to vote. A total of 450 interviews were conducted. The margin for error was plus or minus 5 percent.

The Trust for Public Land has also tracked the success of voter initiatives to raise money for parks and open spaces and other investments in the environment. <info here>

River overlay district

All over Boston, community groups are working with state and local agencies and to create environmental cleanup and recreational opportunities for residents. But coordinating these different entities can be a daunting task. The creation of special overlay districts could help to foster better cooperation and pooling of resources.

The river overlay district would create special development rules and incentives within a specific distance from the river. The river overlay district recognizes that rivers present distinctive problems as well as opportunities for community development. Even more important, the overlay districts help to coordinate the work of public agencies, community groups, and nonprofit organizations.

An overlay district could be created with the cooperation of nearby cities and towns, or as a separate initiative of the City. The more expansive the overlay district – and the more clear its powers and planning tools – the greater the opportunity to coordinate a broad planning process.

The greatest challenge to river communities is environmental. Because of the industrial legacy of these communities, many rivers and river banks suffer from decades of pollution. Other environmental challenges include erosion of river banks, storm water runoff, overflow of sewage during heavy rainstorms, and limited water flow because of dam placement. These issues must be addressed as part of a comprehensive plan for rivers and watersheds.

Another major challenge of river areas is urban design. Waterfronts should be attractive and accessible for all residents and visitors. Landscaping and paths are needed to draw residents and others to the waterfront. Signs are needed to orient waterfront visitors and to provide interpretation of the area's natural and historic attractions. Park benches, play equipment, gardens, boardwalks, and canoe launches need to be built and maintained. Recreation spaces – canoe launches, play equipment, playing fields – should be located at strategic points along the river.

Transportation connections are critical to the life of the riverfront. Attractive, well-designed sidewalks and paths should draw residents, shoppers, and visitors. Bicycle paths and racks should link the riverfronts with nearby residential, historic, and commercial areas. Riverfronts should emphasize public transit and restrict parking. On-street parking and small lots with short-term meters should provide reasonable access for cars. But the riverfront's pedestrian character should not be compromised to accommodate cars.

Development is also critical to the vitality of the riverfronts. Some kinds of development that are unattractive and environmentally unsound – such as industrial, car-related, and some warehousing businesses – should be banned and phased out. Offices, restaurants and coffee shops, some government services could provide a steady flow of people to the area. Other positive uses include recreation, education, day care, museums, and the arts.

Residential development is important to generate year-round use and care of the waterfronts. Infill development engage neighbors in the use and maintenance of the river area and protect neighbors from traffic.

All of these efforts require strong coordination among state and local agencies. State agencies include the Metropolitan District Commission, Department of Environmental Protection, the Massachusetts Water Resources Authority, and the Massachusetts Bay Transportation Authority.

City agencies include the Boston Redevelopment Authority and the departments of Parks and Recreation, Neighborhood Development, Environment, Transportation, Inspectional Services, and Assessing.

SIDE Stony Brook Reservation

Stony Brook Reservation

Owned and managed by the Metropolitan District Commission (MDC), the Stony Brook Reservation is the second largest open space in Boston after Franklin Park. The 475 acres of forest, wetlands, and fields are crossed by ten to twelve miles of hiking and bicycle paths. The reservation contains fields and facilities for baseball, tennis, soccer, ice skating, and swimming – including the John F. Thompson Center, New England’s first recreational facility designed specifically to accommodate physically challenged visitors.

The Stony Brook Reservation is underused because of uneven maintenance and access. Area bicyclists have noted that the reservation’s trails are in need of significant repairs and regular maintenance. Because of its location, many visitors arrive by car and are disappointed to find the parking lots gated and locked. The park ranger’s position was recently vacated and not filled by the MDC. Signage in and around the reservation does not exist, making it difficult to navigate to new visitors.

Stony Brook is an enormous opportunity for the residents of City of Boston. Connections to local and regional resources, such as Franklin Park and the Emerald Necklace, the Neponset River, and Blue Hills Reservation, make it a critical link in the chain of open space in the Greater Boston area.